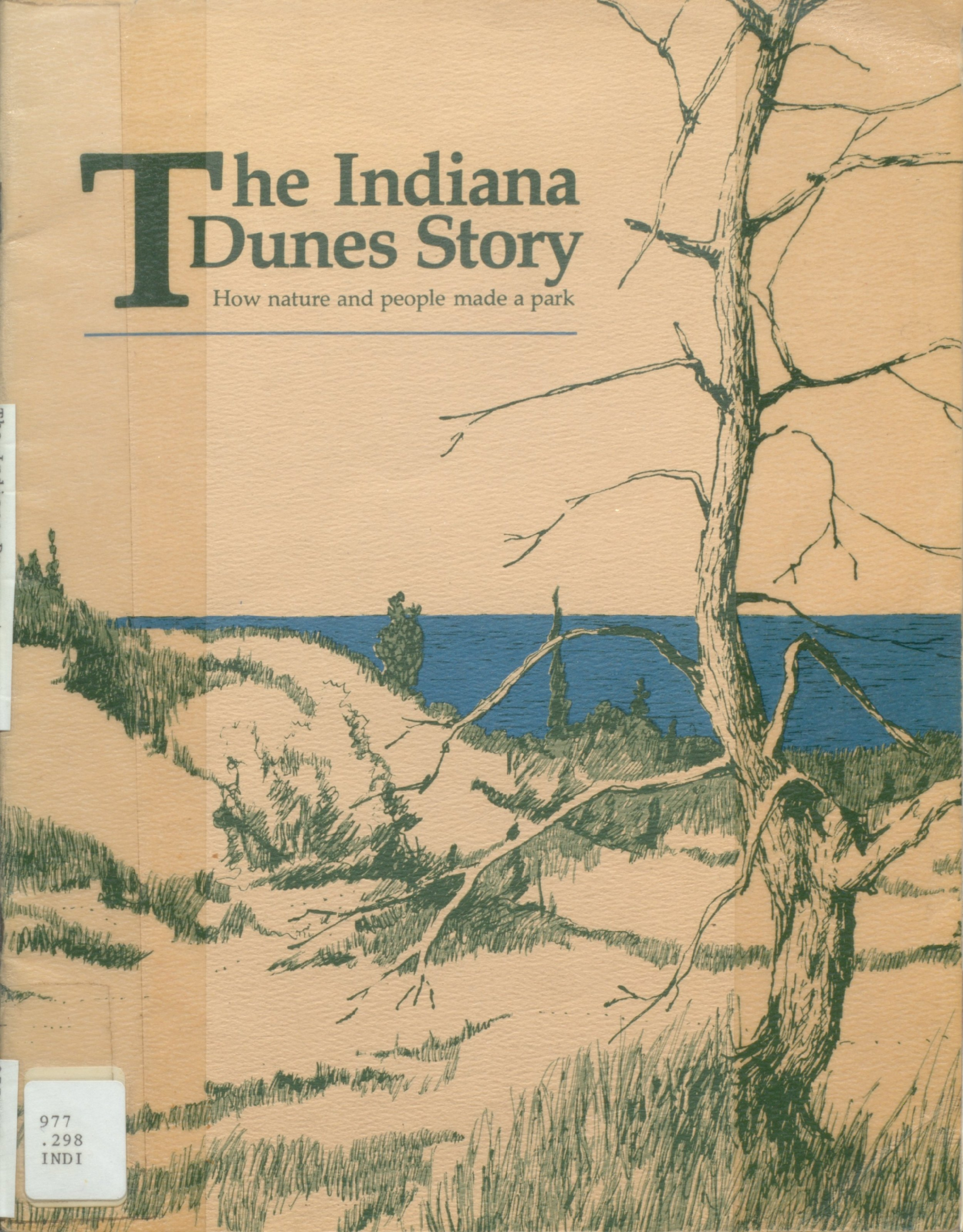
# The Indiana Dunes Story

How nature and people made a park



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## A Word From Our Sponsor

The Shirley Heinze Environmental Fund seeks to protect and preserve the beauty and uniqueness of the Indiana Dunes by acquiring still unprotected dunelands for preservation, by public education projects such as this book and the series of workshops planned to supplement it, and by legal action to enhance environmental quality. Tax-deductible contributions may be made to the Fund at P.O. Box 114, Beverly Shores, Indiana 46301. No part of this book may be reproduced without permission from the publisher.

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Charlotte J. Read, executive director
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# Introduction

In 1920, a man named Peter S. Goodman caused quite a stir when he produced a map of the Indiana Dunes for Rand McNally & Co. and, in so doing, took it upon himself to rename all of the features for individuals and organizations whom he felt had played immortal roles in the struggle to save the dunes. If you have never heard of "Walker Lake" or "Hamilton Slide," we may assume the names never stuck.

We are not attempting, with this book, to make such literal imprints on the land. By tracing the natural and human forces that have shaped the dunes as we see them today, however, we do hope to provide an understanding of what has by now become a classic American study in land use conflict. It is a case in which sustained citizen action has triumphed over tremendous odds to produce a monument not only to the grandeur of nature but to the quality of the human spirit.

*—the editor*

# Section I

## Natural Forces

Chapter One

By Mark Reshkin
and Glenda Daniel

# Physical Forces Which Have Shaped the Dunes

*Scene: A summer day, Indiana Dunes State Park*

The view from the top of Mount Tom will take your breath away—if you haven't lost it already on the long climb up. To the north is the lake, Michigan, and the sandy beach on its margin. To the south, a distant arc of hills, the Valparaiso Moraine, defines the curve of the earth. In between is the swell and swale of the dune country. Some of the ridges and hills are bare sand, or almost, while others are heavily forested. Some of the wetlands are tiny, flower-bordered intradunal ponds; others are long, thin marshes, the remains of ancient lakes and streams.

Sun and rain and wind and snow and the relentless wash of waves on shore have been shaping and reshaping this land like a committee of mad interior decorators for the past 14,000 years or so – since the last local glacier melted enough to form a small pool of water in what is now the Lake Michigan basin.

## The Ice Age

That glacier was the last of four to roll over the Midwest during the million and a half years of the earth's history geologists call the *Pleistocene*, or Ice Age. The Ice Age began when the earth's climate, for reasons not yet well understood, cooled enough to allow winter snows to survive the summer. Year after year, the snows accumulated until their combined weight metamorphosed the lower layers into glacial ice, a weak and plastic rock that began to flow outward like honey spilled on a table.

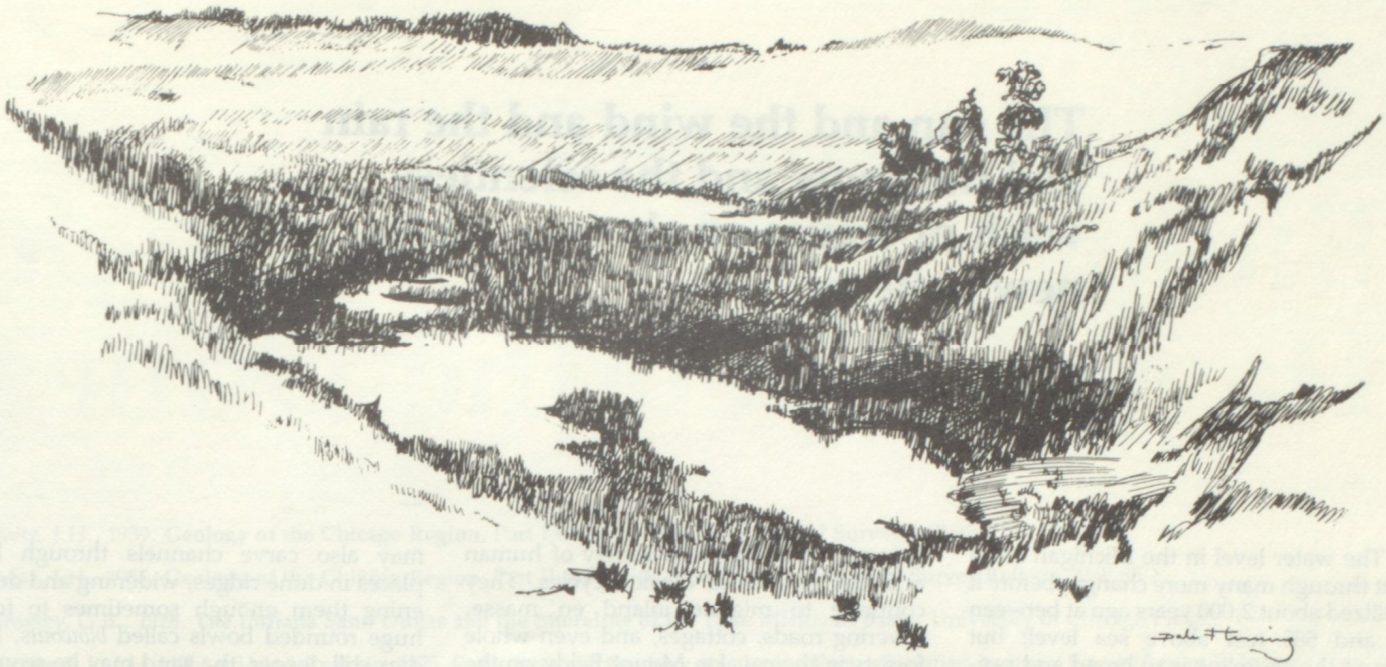
The glaciers that covered the Midwest originated near Hudson Bay, and at their greatest extent they reached just south of the Ohio River.

That last glacier, called the Wisconsinan because its history is clearly marked in that state, got no farther south than central Indiana, but Lake Michigan and the land along its shores are all a legacy of that great ice sheet.

The Valparaiso *Moraine*, for instance, the line of hills visible in the far distance from the top of Mount Tom, is a glacial souvenir. It formed from boulders, gravel, silt and clay dropped out under the glacier's edge during a period between 14,000 and 16,000 years ago when climates were warming and the glacial ice had begun to melt as fast as it could advance.

Pinhook Bog, an isolated parcel of National Lakeshore land near Michigan City, formed as a *kettle* in that moraine. Kettle lakes developed when blocks of ice broke off from the main mass of the melting glacier and got buried in debris. When they melted, they left deep rounded holes filled with water.

A separate moraine, called the Tinley,



**An intradunal pond, West Beach, Indiana Dunes National Lakeshore**

was deposited piggyback on the Valparaiso in a later advance of the Wisconsinan glacier. When that ice retreated, the first Great Lake was born right here—as meltwater impounded between the ice front and the moraine.

A third moraine, called the Lake Border, formed during yet another cold spell in the standing water of that brand new lake about 14,000 years ago; it survives as a narrow band of high ground comprising the Tremont area of the National Lakeshore.

The rocks and soil strung out in long *outwash plains* of glacial drift beyond the moraines were also deposited by the meltwater streaming south from the glacier. The drift deposits show up occasionally at the dunes as pebbles on the beach or inland where sand mining or erosion has removed the surface material; they contain samples of mineral-rich boulders and bits of gravel in every texture, color and composition—carried south with the ice from all over eastern Canada and the northern United States.

## The Changing Great Lakes

As the ice continued its long retreat northward and as erosion cut new outlet channels or carved old ones deeper in the new lake, its surface elevation rose and fell and rose again—adding new signatures on the land to those written already by the glacier.

At least three *stages* of that lake—periods during which the water stabilized at a particular level—are marked clearly in the Indiana Dunes by beach ridge and wetland complexes. The ridges, lined up in rows that parallel the current Lake Michigan shore, were old shoreline dune complexes; and the wetlands were lagoons or nearshore channels between the beaches and offshore sand bars.

Oldest of the three beach ridges is the Glenwood, created at roughly the same time as the Tinley and Lake Border glacial advances, when the lake stood at 640 feet, or more than 60 feet higher than it does today. The Glenwood Beach Ridge skirts the northern edge of the Valparaiso Moraine through northwestern Indiana and passes through the eastern unit of the Indiana Dunes National Lakeshore as a belt of low, wooded sandhills between U.S. highways 20 and 12 from the Bailly Cemetery south of Dune Acres to the National Lakeshore Visitor Center on Kemil Road.

Lake Chicago remained at the Glenwood stage until the melting water eroded downward through the earth and boulder outlet channel of the Valparaiso Moraine near what is now the Palos Hills in a Cook County (Illinois) Forest Preserve southwest of Chicago. It flowed away then along the Des Plaines River toward the Mississippi.

The Des Plaines, faced with this fresh onslaught of rushing water, began cutting deeper and deeper into its bed of glacial debris until it reached a boulder-rich section of the moraine about 12,500 years ago and its downcutting slowed dramatically. The lake stabilized for awhile then at a level 40 feet above the present surface, a stage scientists have named the Calumet. The high ground of its beach ridge was chosen as the logical path for a stagecoach route which later became U.S. Highway 12 in eastern Porter County, U.S. 20 in western Porter County, and Ridge Road in Lake County.

About 11,000 years ago, the river ground through those boulders and the lake level dropped again. It stabilized at what is known as the Tolleston stage when the outlet stream reached bedrock. The oak-covered ridges that lie just south of the Grand Marsh (Long Lake in the National Lakeshore's west unit) were bare sand during the Tolleston period.

**The high ground of the beach ridge was chosen . . . for a stagecoach route.**

**The sun and the wind and the rain and the snow and the relentless wash of waves on shore. . . create new patterns.**

The water level in the Michigan basin went through many more changes before it stabilized about 2,000 years ago at between 575 and 585 feet above sea level; but because the shoreline is so broad and gentle here at the southern end of the lake, evidences of those other lake stages are blurred and less distinct—merging in many places and covered by the very newest dunes.

## Dune Dynamics

Those dunes continue to form, as they have since the earliest days of the Great Lakes, from sand and tiny rock particles washed on shore by lake waves and currents and driven upwards through the shore zone by prevailing northwest winds.

Most summer dunes, like the tourists who flock to State Park and National Lakeshore beaches, are transient. They lodge against driftwood or styrofoam cups or hardy beach plants, linger for awhile, and are gone as quickly as they come, in a sudden puff of wind.

Some do last, though, in low, protected spots, long enough for seeds to sprout or roots to spread wide enough and deep enough to hold them in place. Others combine with each other and roll inland to lodge against still older, higher hills of sand. Thus it is that dunes are born.

As they grow, and as newer dunes forming in front of them provide increased shelter from the elements, many of these dunes become stabilized by vegetation—tiny wildflowers and hardy beach grasses at first but eventually entire woodlands. Others, called *wandering dunes*, face the prevailing winds at such an angle that vegetation either never quite manages to get them under control or the plants are stripped away due to a variety of human activities or natural erosion cycles. They continue to migrate inland en masse, covering roads, cottages, and even whole forests in their wake. Mount Baldy on the National Lakeshore's eastern edge in Michigan City and Smoking Dune at West Beach are both wandering dunes.

The wind and water that create the dunes can also destroy them, of course. Each spring reveals steep new wave-cut cliffs where gentle sloping beaches met the shore the previous autumn. Some of the sand from those former beaches has not traveled far, however; it has piled up just offshore in underwater sandbars which serve as a kind of permanent reserve sand supply for the beaches.

## Waves and Currents

The sandbars also have important effects on two kinds of nearshore currents. *Longshore currents* move obliquely shoreward from the east in gentle weather to cast much of the previous winter's eroded sand back on the beaches as the summer progresses. *Rip currents*, in contrast, are created as a result of storms that utilize breaks in the sand bar ridges. These currents move away from shore in sharp contrast with the adjacent longshore currents and create what is popularly known as an *undertow*. Swimming at State Park and National Lakeshore beaches is very dangerous and is strongly discouraged when rip currents are present.

## Wind Sculpture

Meanwhile, back on shore. . . the wind may also carve channels through low places in dune ridges, widening and deepening them enough sometimes to form huge rounded bowls called *blowouts*. If it digs still deeper, the sand may be scoured down to the water table and thus form *intradunal ponds*.

Mount Tom, highest promontory in the area at an elevation of 767 feet, was created by a combination of these forces—by a wandering dune which climbed over a blowout ridge.

## The Human Factor

In recent times, human intrusion has added to the complexity of the landscape. Picnickers and hikers climbing over and children sliding down the dunes have exaggerated the wind's erosional force. The breakwaters and retaining walls installed by private homeowners, municipalities, and industries change the shoreline dynamics even more. Sand piles up on the upcurrent side of such structures, while erosion increases on the downcurrent side, especially when lake levels are high and beaches are narrow.

And through it all, the sun and the wind and the rain and the snow and the relentless wash of waves on shore continue to act in concert, creating new patterns in the dynamic, ever-changing landscape we've come to know as the Indiana Dunes. □

**Mark Reshkin** *is a geology professor at Indiana University Northwest and a former chief scientist at Indiana Dunes National Lakeshore.*

**Glenda Daniel** *is a Chicago writer and editor who specializes on environmental and natural history subjects.*

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Chapter Two

By Emma Pitcher

# Biological Forces Which Have Shaped the Dunes

The Indiana Dunes are known to biologists the world around because of the role they have played in the development of ecology as a scientific discipline. It was in these dunes at the turn of the century that Henry Chandler Cowles of the University of Chicago made his first observations on plant succession. (*Succession* may be defined as the replacement of one kind of community by another kind, the progressive changes in vegetation and animal life that may culminate in a stable or *climax* community, one that reproduces itself.)

## Succession at the Dunes

Successional evidence can still be observed throughout the Indiana Dunes; it is especially obvious in the West Beach unit of the National Lakeshore where we can see, in a 20-minute walk inland from the lake, many phases of a process of plant colonization and dune development that have taken place over thousands of years.

On the upper edge of the *storm beach*, for instance, we may see sand gathering to form a tiny, temporary dune around the hardy little sea rocket, an annual. The first line of *foredunes* behind the beach is held in place by roots of the cottonwood tree, gaunt sand cherry, and adventitious marram grass; on the lee side of those first dunes and on the slopes of the slightly older dunes behind them grow the bright orange blossoms of butterfly weed, fragrant sumac, wild grape, bittersweet, and little bluestem grass.

Between the rows of dunes, groves of jack pine, horned bladderwort and rose gentian surround the intradunal ponds called pannes.

Farther still from the lake, we find dunes that have remained stable long enough to support black oaks, sassafras, and shadbush, which provide shelter in turn for a ground cover of blueberries and bracken fern.

Protected coves and ravines among these older dunes shelter an even richer woodland mix of beech and maple trees. Dr. Cowles once speculated that a single climax forest of beech and maple might some day be the final stage in the successional process; he had seen such forests growing on sandy dunes along the lake shore in Michigan. Dr. Jerry Olson, also at the University of Chicago, demonstrated in a study during the 1950s that soil conditions, fire and other factors present at the Indiana Dunes were likelier to encourage several different successional routes resulting in several different climaxes.

The opportunity to study succession is but one of many reasons why generations of botanists and amateur wildflower enthusiasts have gravitated to these dunes, however. The variety of species and of habitats in general is also unusually large for such a small geographic area.

Columbine and great drifts of common lupine dress up black oak savannas and blueberry barrens. (*Savannas* are dominated by prairie vegetation but contain scattered trees. *Barrens* are large open areas often dominated by berries or plants of the heath family.) Scattered bits of sand prairie shelter white false indigo, ladies tresses, and unusual lilies and gentians. Orchids and rare sedges live a precarious life at the base of slag pile and oil tank. And Indiana's only grove of northern white cedar survives on a mound of high ground among tamaracks and pitcher plants at the center of Cowles Bog.

**We can see, in a 20-minute walk. . ., many phases of dune development that have taken place over thousands of years.**

## A Botanical Meeting Place

Twenty-six per cent of plants considered as endangered or threatened in Indiana are found at the dunes; many of those plants are thriving here at the northern or southern edges of their natural ranges; others, relicts from glacial times, are entirely *disjunct* or isolated from other populations of their kind. Examples of the latter include two North Woods tree species—the white cedar in Cowles Bog and the jack pine which grows in low areas or on the edge of blowout ridges near the lake. Other northern plants at home here include trailing arbutus and bearberry. Sea rocket and marram grass have Atlantic coastal plain affinities, while the tulip tree, sassafras, sour gum, pawpaw and river birch have the centers of their ranges in the Appalachians or elsewhere in the South.

**Twenty-six per cent of plants considered as endangered or threatened in Indiana are found at the dunes.**

## Adaptations

Many of the glacial relicts and other botanical migrants have managed to thrive at the dunes because the adaptations that served them in their more typical habitats have also proven useful here. The leaves of prickly pear cactus, for instance, have diminished almost to the vanishing point—a characteristic equally useful in southwestern deserts and on sunny, open foredunes. The bearberry's habit of growing in low, flat clumps enables it to survive the harsh cold of northern winters and also the desiccating winds which blow over the Indiana Dunes.

## Great Lakes Plants

Yet another unique category of plants found in the exceptional botanical preserve is comprised of those species which grow only near Great Lakes shores. Among them are the silver-foliaged sand thistle, the glowing Kalm's St. Johnswort, and the prickliest of prickly smilax species, the green briar.

## More Recent Interlopers

The native landscape of the dunes has been considerably altered by the intrusion of humans, with our interstate highways, farms, homes, and gigantic, sprawling industrial complexes. Such disturbance has not only reduced native vegetation but has also enabled the introduction of numerous exotic or weed species. Because of their vigor and aggressive reproductive ways, weeds invade roadsides and power line openings where they displace less aggressive or later-blooming native plants. Black locust, Russian thistle, and purple loosestrife have all made recent observable explosions at the Indiana Dunes.

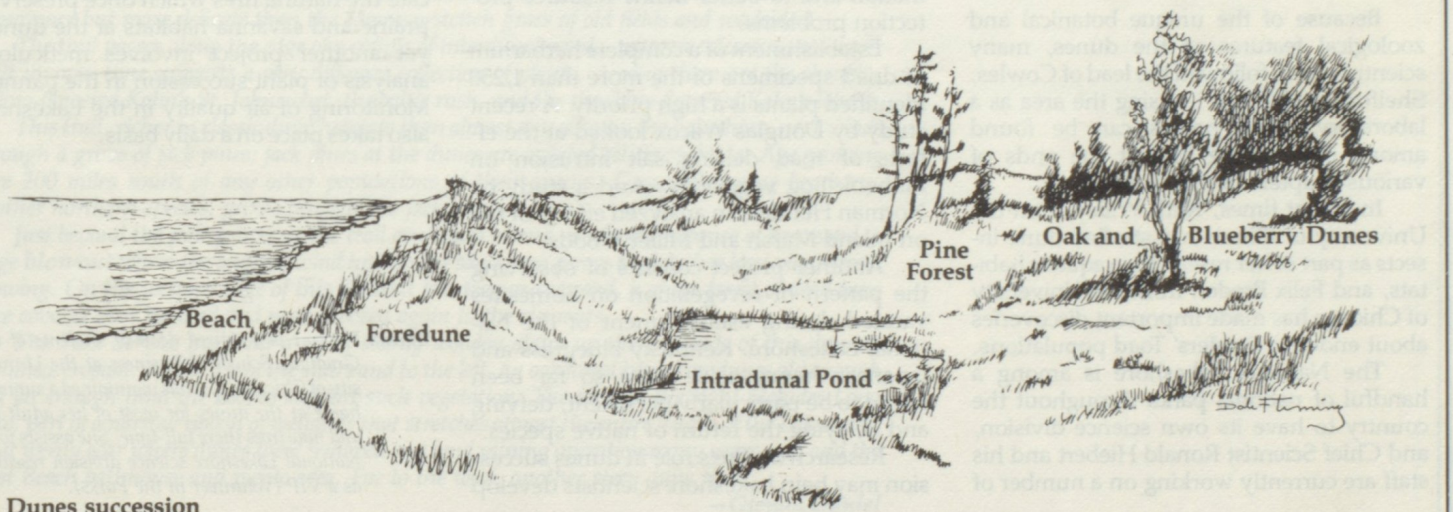
Black locust is a New World native at home in the Appalachians but introduced here by cultivation; the other two are of European origin. Loosestrife, in particular, is a successful invader not only at the Indiana Dunes but all over the United States. In his *Flora of the Chicago Area*, H.S. Pepoon wrote in 1927 of that species: "Wet ground near Wabash Railway west of Aetna, Ind. A few plants in 1900." Today purple loosestrife fills Inland Marsh with such a mass of dense color that it's visible from passing airplanes.

## Birds of the Dunes

The different bodies of water, extensive wetlands, woodlands, prairie, and flood plains found in the dunes area provide an incredible variety of habitats for birds as well as for plants. Some species are permanent residents; others may be summer breeders, winter visitors, or spring and fall migrants.

Unusual warblers nest here: the prairie warbler in the foredune scrub trees, cerulean warblers in the high forest canopy along Trail 2 in the State Park, and hooded warblers in damp, brushy areas along Beverly Drive or the Ly-co-ki-we Trail in the National Lakeshore. Lake Michigan shores sustain waterfowl, gulls, terns and shorebirds, even an occasional snowy owl or snow bunting. The careful observer still finds jaegers and rare gulls in season. A Canada goose nests in the fly ash settling pond near Cowles Bog. And a great blue heron rookery in a flood plain stand of huge beech trees contains some 30 active nests of this majestic bird.

Big May Day bird counts, bird census surveys sponsored by the National




**Dunes succession**

Audubon Society, usually record 160 to 170 species in the dunes area, and Christmas bird counts total about 80 species. In a 1982 study of birds within the National Lakeshore boundaries, local birder Kenneth Brock, a geologist at Indiana University Northwest, listed 110 breeding birds of which 26 species are on National Audubon's "Blue List" of birds with questionable viability.

## Other Dune Animals

Shortly after Cowles' seminal work on primary plant succession, a zoologist, Victor Shelford from the University of Illinois, adapted the concept of succession to animal communities at the dunes. He concentrated on insects and, in particular, found a different tiger beetle in each of several different habitats that represented successional plant stages.

Mammals, too, thrived once in great variety at the dunes, although they were already declining in number by the early 19th century when Joseph Bailly arrived to try his living as a fur trader along the Little Calumet River. Today the even fewer that remain live a precarious existence.

Traditional animal predators are virtually non-existent; but heavy, high-speed automotive traffic and population pressures limit browsing and nesting habitat. Surviving, however, are deer, which seem to thrive here and elsewhere with a modest amount of human settlement. Raccoons, chipmunks, woodchucks and cottontail rabbits are also plentiful; and three species of squirrels are well-established. Once in a while an opossum appears, and more rarely a fox or a mink.

**Great Blue Heron on a nest**

## Biological Research

Because of the unique botanical and zoological features of the dunes, many scientists have followed the lead of Cowles, Shelford and Olson in using the area as a laboratory. Their names can be found among the reading lists at the ends of various chapters in this book.

In recent times, Ruth Willey from the University of Illinois has studied dune insects as part of her research on aquatic habitats, and Felix Breden from the University of Chicago has made important discoveries about endemic Fowlers' Toad populations.

The National Lakeshore is among a handful of national parks throughout the country to have its own science division, and Chief Scientist Ronald Hiebert and his staff are currently working on a number of research projects to obtain baseline information and to better define resource protection problems.

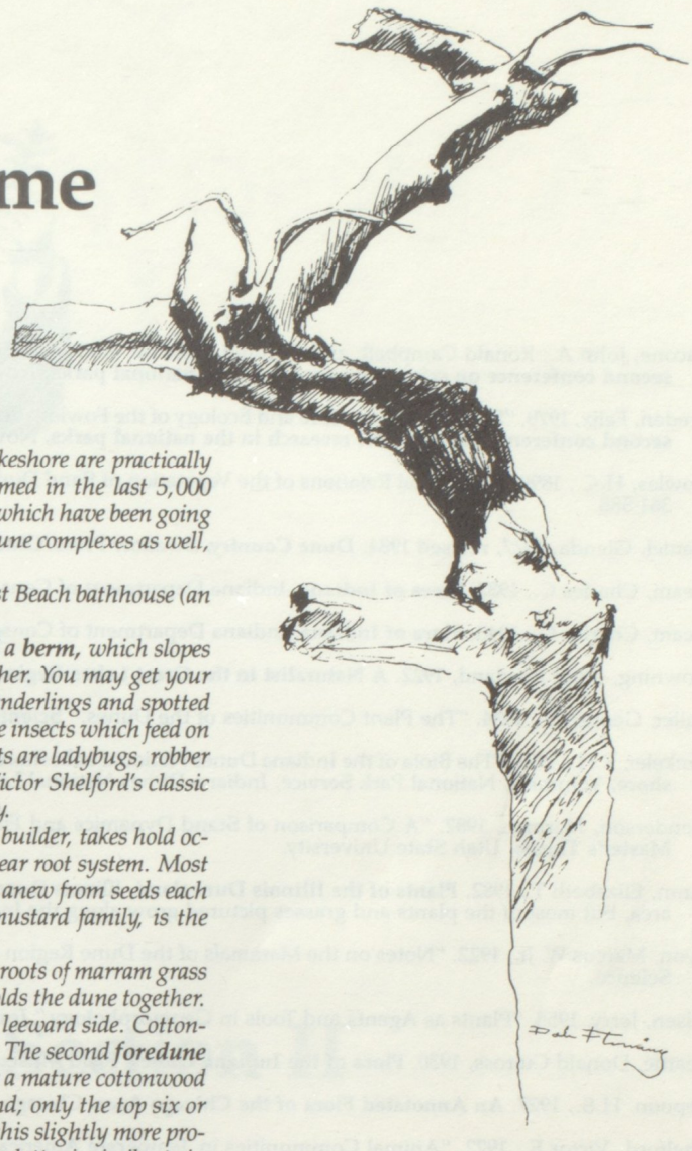
Establishment of a complete herbarium of dried specimens of the more than 1,250 identified plants is a high priority. A recent study by Douglas Wilcox looked at the effects of road deicing salt intrusion on Pinhook Bog vegetation. And a study by Norman Henderson analyzed effects of fire on Inland Marsh and Miller Woods.

Another project consists of observing the pattern of revegetation on homesites vacated during establishment of the National Lakeshore. Kentucky bluegrass and Japanese honeysuckle have so far been found to be particularly persistent, defying and delaying the return of native species.

Research on fire's role in dunes succession may help Lakeshore scientists develop a plan for controlled burns that will duplicate the natural fires which once preserved prairie and savanna habitats at the dunes; yet another project involves meticulous analysis of plant succession in the pannes. Monitoring of air quality in the Lakeshore also takes place on a daily basis. □

**Emma Pitcher** *is a retired dean of students of the Graduate School of Business at the University of Chicago. She has maintained a summer home at the dunes for most of her adult life and now lives there full-time. She assists with National Lakeshore science division research as a VIP (Volunteer in the Parks).*

# West Beach Trail, a walk through time



*Dunes in the West Beach unit of Indiana Dunes National Lakeshore are practically brand new, in a geologic time frame. All of them were formed in the last 5,000 years. But the processes they illustrate are the same as those which have been going on since the end of the Ice Age—not only here but on other dune complexes as well, scattered on sandy shores throughout the Great Lakes.*

*The trail begins on the raw sand beach, about 800 yards east of the West Beach bathhouse (an upright pole in the sand is* ***usually*** *there to mark the spot).*

*The transition zone between lake and land is a shelf of wet sand called a* ***berm,*** *which slopes gently or steeply up from the water, depending on the previous day's weather. You may get your first look at dunes wildlife on the berm, where thin-legged shorebirds—sanderlings and spotted sandpipers, ruddy turnstones and black-bellied plovers—arrive to pick at the insects which feed on the remains of birds and fish washed ashore by the waves. Among the insects are ladybugs, robber flies, and two species of tiger beetles—white and copper—that figured in Victor Shelford's classic studies of animal succession at the dunes in the early years of the century.*

*Beach plants are few and far between. Marram grass, the classic dune builder, takes hold occasionally; it grows in single-file rows, each shoot attached to the same linear root system. Most of the plants on the beach are annuals, however, those which must sprout anew from seeds each summer. Sea rocket, a white-flowered, succulent-leaved member of the mustard family, is the most common of these annuals on the beach.*

*The first dune behind the beach here is only about six feet tall; tangled roots of marram grass are usually exposed on its lake slope, revealing the organic thread which holds the dune together.*

*The first young cottonwoods can be seen at the base of this dune on its leeward side. Cottonwoods need moisture in the spring and shelter from the wind to get started. The second* ***foredune*** *here at West Beach is steeper than the first, its shape determined mainly by a mature cottonwood with multiple trunks. At least 15 feet of this tree are now buried in the sand; only the top six or eight feet protrude. Little bluestem, a grass of dry prairies, also appears on this slightly more protected second dune along with a rarer local plant called sand reed grass. (The latter is similar to in appearance but more delicate than the common switch grass of old fields and roadsides).*

*The trail passes along the edge of a couple of interdunal ponds, where a calcareous soil layer built up over time supports a very different collection of plants. Among them are the shrubby, yellow-flowered Kalm's St. Johnswort, the baltic rush, and the tiny blue-flowered Kalm's lobelia.*

*This trail, richer in classic dune habitats than almost any other in the Lakeshore, next winds through a grove of jack pines; jack pines at the dunes are isolated relicts of the Ice Age growing here 200 miles south of any other populations of their species. Ground-hugging bearberry, another northern species, grows beneath the jack pine.*

*Just beyond the pine grove, as the trail continues inland, is a broad expanse of bare sand, a huge* ***blowout*** *where the angle of wind hitting the sand from across the lake has kept plants from growing. On the western edge of this blowout is a* ***tree graveyard,*** *a ghost forest of dead trees once covered over by sand and now exposed again to the elements.*

*The Park Service has built a set of sturdy wooden stairs up the back side of this dune to minimize erosion. At the top of the stairs and to the left, an oak forest begins on dunes old enough and far enough from the lake to support such vegetation. The view to the right includes Long Lake, part of a narrow ribbon of wetlands that stretches almost the entire length of the Lakeshore; a flat weedy scar where dunes were removed in a land mining operation many years ago; and the West Beach bathhouse and picnic area. Far to the west, another steep dune rises.*

***—Glenda Daniel***

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Henry Chandler Cowles

# Section II

# Cultural Forces

Chapter Three

By Jerry Sullivan

# A Descriptive History of Land Use

**The battle among... contending claimants to the benefits of the dunes has intensified.**

The history of land use at the Indiana Dunes divides rather neatly into two very unequal parts. The older portion starts somewhere in prehistory and ends around the turning of the 20th century. In those times, people drew resources from the dunes, whether of wild berries, timber, or the sand itself, but few of them lived here. They came, took what they wanted, and left; and the dunes, although heavily traveled and more and more nibbled at, remained as wild and desolate places.

The growth of Chicago, more than any other factor, ended that time. Industry moved south and east in search of cheap lakefront land. Railroads and paved highways opened the dunes both to seekers after a life in the suburbs and to millions of citybound workers hoping to refresh their spirits in a natural landscape. The battle among these three contending claimants to the benefits of the dunes has intensified as population has grown and the need for open land has intensified.

## Indian Life at the Dunes

Indians were the first dune users, but they chose to live in the woods to the south in summer villages surrounded by corn, bean, and squash fields. We can surmise that various groups occupied the land at different times. We know of one change in historic times. The Miami moved south from the dunes in the 1670s, just as French explorers Marquette and LaSalle were establishing a connection between the southern end of Lake Michigan and the rest of the world. The Potawatomi, slipping south along the lake from their old home in northern Lower Michigan, moved in about 1681 and stayed for the next 150 years until the U.S. government shipped them west of the Mississippi.

## The French Connection

The fur traders created an immediate and permanent change in the lives of the Potawatomi. As fur trapping became a business instead of merely a subsistence activity, it doubtless began to claim more of the Indians' time, thus drastically altering the patterns of daily and seasonal existence. And when the native trappers traded their furs to the Europeans, they got unheard of riches in return: iron kettles, steel knives and axes, woolen blankets, muskets. The new goods made a quick end to a number of native crafts. By the late 18th century, scholarly types with a collecting bent were complaining that they couldn't buy an authentic Indian clay pot on the Upper Lakes. Nobody remembered how to make them.

But we can reconstruct Indian life at the dunes, putting together a composite picture from various sources. Many eastern

**A South Shore Railroad train, Tremont station**

**Railroads and paved highways opened the dunes both to seekers after a life in the suburbs and to millions of city bound workers hoping to refresh their spirits in a natural landscape.**

woodland peoples followed a semi-nomadic life, moving from their summer homes in permanent towns near their fields to winter hunting camps occupied by a single family. In early spring, the villagers would reunite at the maple sugaring ground to boil down a years' supply of sap. They used maple sugar as a universal condiment much in the way we use salt.

The dunes, with their nearly sterile soils, were poor locations for a corn field. In winter, the lake winds howled across the sands; so the Potawatomi built their camps in the Kankakee marshes to the south.

But the men traveled to the dunes in spring to hunt waterfowl in the marshes and spear sturgeon in the big lake. And the women came in summer to gather blueberries from the oak savannas and cranberries from the bogs. As transplanted northerners, the Potawatomi would have appreciated the dunes as a source of bearberry and red osier dogwood for smoking, and doubtless they dug up the strong slender roots of jack pines and slivered them for thread to hold their canoes together.

The century of French domination of the fur trade created deeper cultural or sociological changes in Indian life, too. After an initial—sometimes violent—resistance, many Indians became Christians. The French sent few settlers into the interior, and those that came lived on generally friendly terms with their Indian neighbors. They often intermarried, and the children of these unions could choose to live as Indians or as Frenchmen.

## Joseph Bailly and the Transition Period

Joseph Bailly, the first white settler at the dunes, married two Indian women in succession. Among the children of his first marriage, one chose to become an herb doctor among the Ottawa while another went on to be a member of the Minnesota State Legislature.

The dunes were difficult country, but their location at the southern tip of Lake

**Chellberg Farm, Indiana Dunes National Lakeshore**

Michigan made them a highway. Indians had pioneered several east-west trails on the land between the beach and the Valparaiso Moraine. Bailly and his second wife, Marie, who was half Ottawa and half French, built a trading post on the Little Calumet River at the junction of two of the major routes. In 1822, the American Fur Company dominated the trade, but the Baillys set themselves up as independent traders who sold their furs to the company.

For a time, Joseph and Marie Bailly lived the life of the Old Northwest. Indians, including her relatives, were frequent visitors, although people of any kind were scarce. Except for a murderous exploitation of fur bearing animals, the small population made light demands on the land. But by the 1830s, Bailly was busy platting a town near his old homestead, expecting a flood of settlers to snap up the lots. He was only one of many hopeful entrepreneurs who laid out phantom towns in the dunes when the Indians were moved west and Lake and Porter counties went up for sale at the government land office. City West, laid out in what is now the state park, drew some interest in 1837 when the promoters raised local hopes that federal aid was forthcoming to create a harbor at the mouth of Dune Creek. But the aid went to Michigan City and Chicago, and by 1838 City West was a ghost town.

Timber cutting and related industries, such as sawmill operations, turned out to be among the most profitable of local enterprises in the 1830s and '40s. The dunes' last virgin forests of oak and white pine probably disappeared during these decades. The best of the stump land was then sold to farmers.

**The good times attracted more settlers, among them fair numbers of Swedes.**

## Farmers and Railroads

By 1850, Lake and Porter counties had a combined population of over 9,000, nearly all of them farmers living on the richer soils south of the Little Calumet River. The vast marshes and sandhills along the lake were home to but a handful of people, most of them innkeepers serving travelers rounding the southern end of Lake Michigan on their way to Chicago.

The railroads came in the 1850s and changed the lives of the local farmers. Cut off from ready access to markets—it was three hard days on the box of a heavy grain wagon to Chicago—the farmers had been forced into a subsistence mode. The railroads opened markets not just for grains but for fresh meat, vegetables and dairy products as well. The railroads—and the boom created by the Civil War—made the farmers prosperous. Wooden houses replaced the log cabins, and people began lighting their rooms with kerosene lamps instead of candles.

The good times attracted more settlers, among them fair numbers of Swedes. They began to come in the 1850s, and by 1890, thousands of them were living near the dunes. Chellberg Farm in the National Lakeshore preserves their way of life, which in its methods and equipment is typical of farm life throughout the Midwest around the turn of the century.

## City/Country Conflicts

The railroads also made the dunes more accessible to people from Chicago, and in 1873 a group of the very rich—the membership roster included such notable names as Armour, Field, Palmer, and McCormick—founded the Tolleston Club in what is now Gary and bought large tracts of marshland as a hunting preserve. Local people had always used the marshes for hunting and trapping—they were taking 10,000 muskrats a year in northern Indiana—and they reacted to the club's wardens

# Pioneer family life at the Dunes

*The earliest settlers in the Indiana Dunes exemplified a cultural diversity that seemed to harmonize with the ecological diversity of the land on which they chose to make their homes.*

*Joseph Bailly, a French-Canadian fur trader, came in 1821 with his second wife Marie, half French and half Ottawa, to settle on the banks of the Little Calumet River. Because Bailly was a devout Catholic, his home became a religious retreat in the wilderness; traveling priests often stopped for long visits, and the Baillys regularly held mass in their dining room. Marie Bailly's Indian friends were also welcome on the homestead; when large numbers of them passed through, they were accustomed to setting up their tents on the vast expanse of Bailly lawn. Some of them converted to Christianity under the Baillys' tutelage; but those who preferred to retain their native religion were also respected by the family.*

*After Bailly's death, his son-in-law cleared timber on the eastern 40 acres of the family holdings and sold the land to a former employee, a Swedish immigrant named Anders Chellberg. Chellberg and his family built a farm on the stump land, and that farm became, in its turn, a community cultural center for the largely Protestant, largely Swedish farming community.*

*Barn raisings, quilting bees, maple sugaring, communal plowing and threshing were the norm. Among the year's special ceremonial occasions was a neighborhood party to celebrate the winter solstice or "return of the light," the coming of longer days.*

*A National Park Service trail through the old Bailly and Chellberg land begins, with a logic determined by parking lot space, at the most recent stage of the history—the farm built by Anders Chellberg in the 1870s and '80s.*

*The parking lot is adjacent to a visitor contact station on Mineral Springs Road between U.S. highways 12 and 20.*

*The foot trail runs north through a sugar maple grove on the edge of a ravine to the farm itself. The house was built of native brick; most of the outbuildings are wood. The barn features mortise and tenon construction common in rural America before nails became plentiful and cheap.*

*The trail crosses the ravine north of the barn in a mature beech/maple woods that is rare in the dunes today; more such trees probably existed in protected areas before they were cut down at the height of the dunes timber industry in the early to mid-19th century. The path branches on the far side of the ravine; the main route continues west (left) toward the Bailly Homestead, across an old field and through a lowland forest carpeted in spring with wildflowers; a side trail branches north (right) to the Bailly family cemetery.*

*—Glenda Daniel*

with gunfire in several nasty encounters. The local courts would seldom convict the Hoosiers in these battles.

The railroads also brought sand miners who, according to Powell Moore's history of *The Calumet Region,* were hauling 5,000 carloads of sand from the Dune Park railroad station every 24 hours by 1898. The opening of the Chicago, South Shore and South Bend Railroad—usually called the South Shore—in 1908 put a trip to the dunes within the means of hundreds of thousands of Chicagoans, and the completion of the Dunes Highway (now U.S. Highway 12) 18 years later made this island of wilderness even more accessible.

## Science at the Dunes

Dr. Henry Chandler Cowles and generations of students rode the South Shore on field trips to study the processes that had formed the dunes and the unique assemblage of plants that grew in the sand and swamps. Victor Shelford studied tiger beetles and discovered the processes of succession that controlled their distribution. The work of these scientists helped create the intellectual structure of the young science of ecology and, by the way, made people all over the world aware of the biological uniqueness of the dunes. *(See Chapter 2).*

## Recreation and the Push for Preservation

The Prairie Club began regular outings to the dunes on the South Shore, and poets and publicists followed. The dunes were proposed as a national park as early as 1916 when they were only starting to be famous. A preservationist movement that grew out of the early scientific work and recreation use had its first success when Indiana Dunes State Park was established on 2,200 acres in 1923 *(See Chapter 6);* but the National Lakeshore was not to become a reality for another half a century.

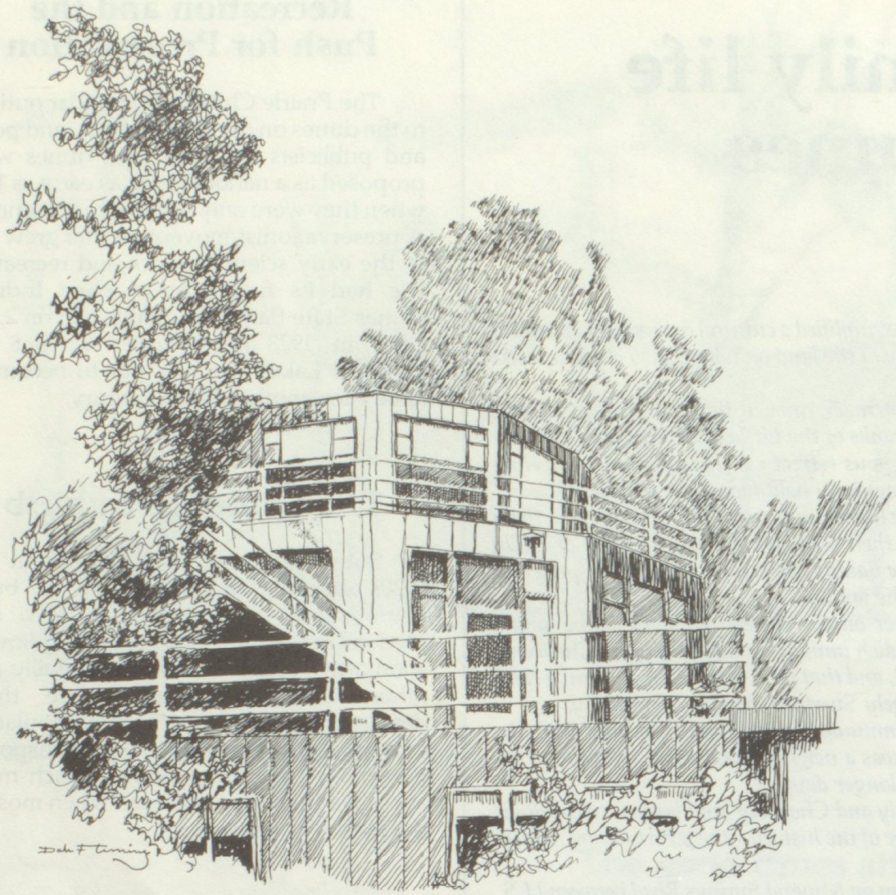
## The Dunes as Suburb

Suburbia came to the dunes in the 1920s after the Dunes Highway was built. Dune Acres was platted in 1923, and Ogden Dunes and Beverly Shores followed soon after. Unlike the efforts of Bailly and others almost a century before, these developments were successful. Population growth combined with better transportation made beachfront houses much more attractive than they had been when most of the land was wilderness.

## Industrial Pressures

When Chicagoans began making day trips to the dunes on the new South Shore, the U.S. Steel mill in Gary had just fired its furnaces for the first time. Gary was an enormous undertaking, a city built from scratch almost overnight, the sandhills leveled for a huge steel mill, boat docks along the beach that had once carried stagecoaches on the way to Chicago. This was industry's first massive invasion of the dunes, a direct outcome of the growth of Chicago. Steel making had begun in that city as early as 1839. Those mills were downtown on the Chicago River, and that land quickly became too valuable for steel making. In 1870, the federal government decided to dredge Lake Calumet to make it a suitable harbor for ore boats, and that led the Illinois Steel Company (later U.S. Steel) to build its South Works on the Illinois side of the state line.

By 1889, Standard Oil was in Whiting, and in 1902 Inland Steel opened its Indiana Harbor Plant in East Chicago. The need for yet another harbor and a lakefront location led Midwest Steel and then Bethlehem Steel further into the dunes in the late 1950s and early 1960s. Midwest Steel was the first to buy land. Bethlehem Steel bought its land secretly and only announced plans for



**House of Tomorrow, one of the 1934 World's Fair homes at the dunes.**

its steel mill after the land was safely purchased. The acreage Bethlehem bought in the Dune Park area included some of the best remaining dune land, places whose richness and diversity showed most clearly the processes that formed and sustained the dunes.

The plans of both companies depended on federal aid for a harbor near Burn's Ditch, and thanks to the vigorous support of Indiana's senators and congressmen, that aid was forthcoming in 1965 and the companies went ahead with construction.

## The National Lakeshore

The intense fight over the new steel plants signaled the radical changes that had taken place in the half century since U.S. Steel founded Gary. Bethlehem and Midwest Steel found themselves opposed by people who spoke for the dunes as an island of peace where city folk could restore their spirits and as a wild landscape that possessed a value of its own, beyond any human use. That opposition nearly prevailed, and in time did achieve partial victory in the foundation of the National Lakeshore on what remained of the dunes.

The three-sided battle among industry, suburbia and preservationists didn't end with the establishment of the National Lakeshore, however. Since 1966, major conflicts have included a proposal by the South Shore to build an 800-car marshalling yard within the park and an attempt by Northern Indiana Public Service Company (NIPSCO) to build a nuclear power plant at the edge of the park. These and other battles are described in more detail elsewhere in this book. □

**Jerry Sullivan** *is a Chicago writer with a background in anthropology who focuses on political satire and environmental issues in his work.*

# The World's Fair Homes, an auto tour

*Almost 50 years of wind, sand and surf have worked to batter the five houses into conformity with their neighbors along Lakefront Drive in Beverly Shores, but their uniqueness has resisted the onslaught. At the Chicago World's Fair in 1933, with its theme of a Century of Progress, they were built and furnished to demonstrate the latest materials, technology, and design in home building. The technology, which included such features as dishwashers, central air conditioning, and passive solar heating, has long since become commonplace. But the designs and, in some cases, the materials, still look surprisingly up-to-date in their current settings at Indiana Dunes National Lakeshore.*

*The houses were brought to the dunes on a barge after the Fair was over by Michigan City real estate developer Robert Bartlett; he used them to entice buyers to his new resort community of Beverly Shores.*

*One of the structures currently serves as the National Lakeshore's science division headquarters, and the others are still leased by the park to the former owners. The Park Service will restore the interiors with original furnishings and put the houses on permanent display after 1995, when the current leases expire.*

*To see them, drive north on Kemil Road (300 E.) from its junction with U.S. 12 at the National Lakeshore Visitor Center to the beach and curve right (east) along Lakefront Drive.*

***The Rostone House,** which houses the park's science division, is about a mile east of that curve; the house is on the left (lake) side of the road. It was designed by architect Walter Scholer of Lafayette, Ind. Rostone was a synthetic stone, trademarked under that name by a specific company, the Rostone Corporation; the material was transformed chemically into large hunks from powdered limestone and chips of limestone and shale. It was the stone equivalent of plywood. Except for a small panel above the door, the original exterior was covered about 25 years ago by yet another synthetic material called Permastone.*

***The Armco-Ferro Enamel House** is located on the south (dune) side of the road just east of the Rostone House. It was designed by Cleveland architect Robert Smith Jr. for the American Rolling Mill Co. and the Ferro Enamel Corporation and reflected the Bauhaus bow to simplicity. (The Bauhaus was an architecture and design movement which began in Germany after World War I. Its best-known slogan was "form follows function." Chicago architect Mies Van der Rohe was the movement's most prolific adherent in the American Midwest). A frameless seven-room structure with sheet metal walls, the Armco-Ferro house was meant to demonstrate that even Depression-era families on tight budgets could afford the latest technology. The exterior is enamel baked on iron.*

***The House of Tomorrow,** also on the south side of the road immediately east of the Armco-Ferro house, is an even more elaborate Bauhaus inspired design, the creation of Chicago architects George and William Keck. A 12-sided structure with central steel frame and floor-to-ceiling glass windows, its three floors are stacked like layers of a wedding cake, each smaller in diameter than the one just beneath. The lower level originally contained two large garages—one for a car and one for the airplane which World's Fair optimists assumed every family would soon have.*

***The Florida Tropical House** is on the lake side of Lakefront Drive just east of the Rostone House. You can't miss it; it's bright pink. The current reservation-of-use holders planned to repaint it in a different color years ago but were persuaded not to by sailors who said they depended on "the pink house" as a landmark. Architect Robert Law Weed of Miami sought with this creation to blend outdoor and indoor environments harmoniously. With that in mind, he built a spacious two-story living room with overhanging balcony, numerous wide, open terraces, and an early version of the classic picture window. The interior featured shiny, reflecting surfaces to enhance the feeling of spaciousness; the smooth texture was also meant to minimize household cleaning chores.*

***The Cypress House,** also on the road's lake side another block east, was constructed by a building trade association, the Southern Cypress Manufacturers, who used it to demonstrate various finishes and construction styles which could be applied to their natural product.*

***—Glenda Daniel***

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# Section III

## Conflict and Conflict Resolution

Chapter Four

By Norma Schaeffer
and Kay Franklin

# Industry versus Preservation

**Industry first invaded the pristine wilderness of the Lake Michigan dunes in 1906...**

A patchwork of parklands, steel mills, and power plants join with the Port of Indiana to make up the Indiana Dunes of the 1980s. These incompatible elements coexist in uneasy truce at best; at worst, they openly conflict with one another for use of the land. Beyond visual blight, the presence of heavy industry has produced severe effects on the environmental quality of the Indiana Dunes National Lakeshore and Indiana Dunes State Park. It has taxed the ability of state, federal and local officials as well as that of involved citizens to find creative solutions to the many problems.

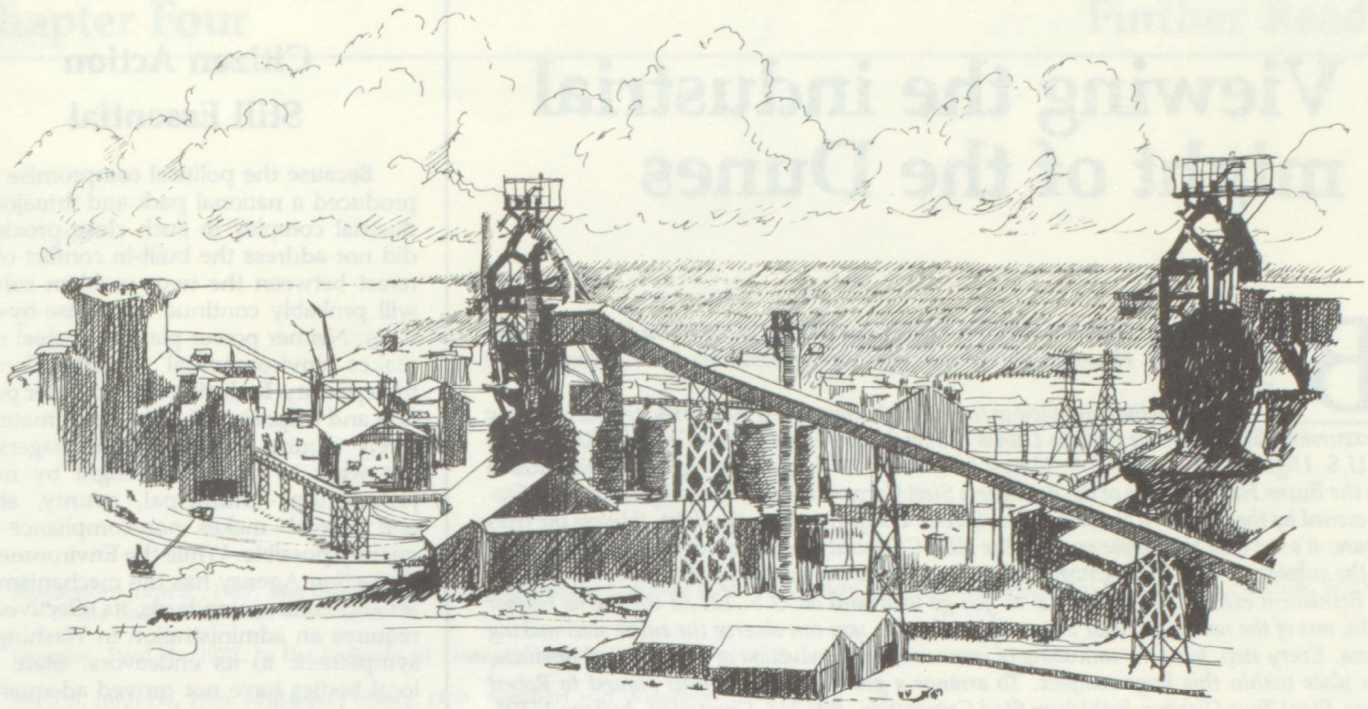
The dunes industrial corridor takes up large sections of Lake Michigan's shoreline. United States Steel's Gary Works facility, National Steel's Midwest Division, and Bethlehem Steel's Burns Harbor plants are the most imposing. However, the Northern Indiana Public Service Company's (NIPSCO) generating station, steel satellite industries, railroad and power access facilities, and the harbor also sprawl along the lake's edge, completing the giant industrial complex.

## U.S. Steel's Arrival

Industry first invaded the pristine wilderness of the Lake Michigan dunes in 1906 with the arrival of U.S. Steel. Company leaders had long searched for a new location halfway between the iron ore supply of Minnesota and the coal resources of the South. They found an ideal spot for their purposes on Indiana's Lake Michigan shore. The site featured cheap land close to Chicago's markets and labor supply, a vast waterway deep enough for the largest lake vessels to ship raw materials in and finished products out, and good access to established rail transport. Furthermore, because the area lacked development of any kind, it could easily provide the 9,000 acres and seven miles of shoreline that the plant required. In building the facility, U.S. Steel engineers tampered with the natural terrain on a vast scale. They moved as much dirt as was moved for the Panama Canal, diverted a river a hundred yards away, laid a tunnel 80 feet deep and a mile out into the lake, and constructed a mile-long breakwater that used mountains of concrete and 160,000 tons of steel. Moreover, they achived their goal with virtually no regulatory oversight. Contemporary observers viewed the Gary plant as a modern miracle that would lead to prosperity and progress for the region. Environmental considerations had no place in the thinking of the day.

## The Second Industrial Generation

In 1929, to the gratification of Porter



**Bethlehem Steel Co.**

County boosters, Midwest Steel, a division of National Steel, bought 750 acres spanning Burns Ditch, a newly completed channel that diverted water from the Little Calumet River into Lake Michigan. The same year, NIPSCO purchased 300 acres for a power station in the Porter County dunes. Following these events, Porter County businessmen embarked on a 40-year crusade to build a publicly funded port near Burns Ditch. They believed that such a harbor would encourage Midwest to build an integrated steel mill there and attract other greatly desired industries to the locale. With the prospect of a subsidized port on the horizon, the steel company did not seriously consider emulating U.S. Steel, which had built its own harbor. Instead, Midwest and, later, Bethlehem as well, made construction of steel-making facilities conditional on commitment to and money for a public harbor.

## Preservationist Opposition Grows

In the early 1960s, Midwest finally constructed a finishing plant in the Dunes. Meanwhile, Bethlehem had purchased 1,200 acres of the central Dunes, viewed by preservationists as the choicest part of the entire region, and the Indiana legislature appropriated $2 million to pay for the harbor site pending approval from the U.S. Army Corps of Engineers. These events precipitated a fierce legislative struggle between industrialists and preservationists. The battle resulted in a politically imposed compromise that created the Indiana Dunes National Lakeshore and authorized public funds for the Port of Indiana. The compromise, orchestrated by President John F. Kennedy's staff, sanctioned industrial use for the Dunes at the same time that it praised preserving the land. Though the controversy delayed construction of the port and erection of the steel-making facilities for almost a decade, it did not prevent their realization.

By the middle of the 1960s, Bethlehem had completed the largest single undertaking in the company's history. To make room for the complex of buildings that covered a million square feet of floor space, Bethlehem's giant earth movers transferred 20-25,000 cubic yards of sand a day, leveling ancient hills and filling swamps and marshes.

NIPSCO, too, developed the Dunes property it had held for 30 years. The site provided the enormous quantities of free water required for producing electric power. Sandwiched between Bethlehem's land to the west and southwest, Lake Michigan to the north, the South Shore Railroad right-of-way to the southeast, and what became the National Lakeshore to the east, NIPSCO constructed two coal-fired generating stations that produced 523,900 kilowatts; the utility also built a 345,000-kilowatt substation, a transmission line corridor, and support facilities. Years later, the company failed in its plan to construct a nuclear plant as well. Legal challenges by opponents together with close to a thousand per cent increase in cost forced abandonment of the project.

## Port of Indiana Opens

Finally, the official groundbreaking of the Port of Indiana took place in 1966. At a cost of over $92 million, the harbor rose on a 400-acre site where the holdings of Bethlehem and Midwest came together. It included 95 acres of landfill created by the dredging of the harbor. By the end of the decade, a three-mile-long industrial corridor sprawled along the dunes shoreline.

The juxtaposition of natural areas and manufacturing acreage has created severe and continuing problems of environmental degradation. The steel mills and their satellites, NIPSCO, and the long-coveted harbor have contributed to deterioration of plant and animal habitats through air and water pollution. Massive landfills have caused beach erosion and alteration of natural drainage patterns. These processes have continued and accelerated, causing ongoing problems for the Lakeshore. Inadequate disposal of industrial waste products also threatens the entire dunes area. Because ecosystems do not conform to political jurisdictions or property lines, industry's actions often have environmental

# Viewing the industrial might of the Dunes

*Because of safety and security precautions, individuals cannot visit factories located in the dunes. However, groups can make arrangements for tours at some of the plants.*

*For a preliminary view of the size and extent of the industries, try the following car excursion. Start from the Indiana Dunes National Lakeshore's Visitor Center at Kemil Road and U.S. Highway 12. Follow U.S. 12 west for 5.4 miles to the first stop light. The entrances to both the Burns Harbor Works of the Bethlehem Steel Corporation and the Bailly Generating Station owned by the Northern Indiana Public Service Company are on the right. (Unless the trees are bare, it's not easy to glimpse much of the NIPSCO facility except for high transmission lines and the substation near the highway). No tours are given of the Bailly Station.*

*Bethlehem extends for three miles as you go westward on U.S. 12. At the Burns Harbor Works, one of the nation's newest integrated steel mills, you can observe the entire steel-making process. Every step, from the unloading of iron ore to the production of finished steel products, takes place within this huge complex. To arrange a group tour, send your request to Robert Finger, Plant Tour Director, Bethlehem Steel Corporation, Box 248, Chesterton, Indiana 46304.*

*As you reach the western end of the Bethlehem property, you will see the entrance ramp that leads to the Port of Indiana on your left. A view of the port from U.S. 12, shows cranes and ship structures on the north side of the road. On a group tour, you will go down to the docks and may have the opportunity to see cargo unloaded. To make arrangements, write Jim Pugh, Executive Officer, Indiana Port Commission, P. O. Box 189, Portage, Indiana 46368.*

*Continue .8 mile west on U.S. 12 to the second stop light. On the right you will find the entrance to the Midwest Steel plant. This operation concentrates exclusively on finishing steel. At present, the company has discontinued tours but may resume them in the future. Contact Manager of Public Affairs, Midwest Steel, Portage, Indiana 46368 for further information.*

*To reach the Gary Works of the United States Steel Corporation, drive west on U.S. 12 for another 9.6 miles. Take Entrance 17, Gary-East, of the Indiana Toll Road on your right. The four-mile drive westward on the toll road to the next exit, Gary-West, will give you a panoramic view of the sprawling Gary Works, the oldest steel producing plant in the dunes. U.S. Steel does not offer tours.*

*—Norma Schaeffer and Kay Franklin*

consequences far beyond its own boundaries. Solutions require tradeoffs and compromises that do not always work to the benefit of the natural environment.

In some cases, negotiation has proved the key to resolving disputes between the national park and its industrial neighbors. Shortly after the National Lakeshore's establishment but before the government purchased the land, the Chicago, South Shore and South Bend Railroad attempted to develop a marshalling yard on land within the park's boundaries. Protracted negotiations between the interested parties together with some arm-twisting by concerned members of Congress persuaded the railroad to locate this facility outside the park. (See Chapter Six *The Freight Yard Battle*). When industrial threats lay outside the park's boundaries, however, neither negotiation nor persuasion could reliably counteract it. In 1972, NIPSCO built a new generating station in Michigan City at the eastern border of the National Lakeshore. Public outcry about the proposed dumping of heated water into the lake caused the company to add a 350-foot cooling tower to its plans. However, continued pressure to place it so as not to cause visual pollution of the natural landscape went unheeded.

Situations have also often arisen where legal remedies have proven inadequate. During the winter months, for example, visitors to the Cowles Bog area of the Lakeshore often smelled noxious odors emanating from the nearby Continental Can plant. No federal laws governed odors, and weak state statutes provided no means to force the company to turn on the incinerator used in the summer to dissipate the problem. The smells not only produced unpleasant experiences for park visitors but the potential for deleterious health effects as well.

## Citizen Action Still Essential

Because the political compromise that produced a national park and a major industrial complex in such close proximity did not address the built-in conflict of interest between the two, problem solving will probably continue on a case-by-case basis. Neither power plants nor steel mills makes environmental considerations a high priority. Reducing air and water pollution and disposing of solid waste materials safely require money plant managers do not want to spend; oversight by many jurisdictions—municipal, county, state, and federal—makes non-compliance frequently possible. While the Environmental Protection Agency has the mechanisms to set and enforce standards, its effectiveness requires an administration in Washington sympathetic to its endeavors. State and local bodies have not proved adequate to the task. Unfortunately, often against the better judgment of the Indiana Dunes National Lakeshore staff, federal policies have forced decisions not always in the best interest of protecting the park's holdings. Monitoring by alert citizens may once again prove the only means of protecting the dunes they fought so long and hard to preserve.

## An Economic Irony

Ironically, the state of the steel industry in the 1980s makes a mockery of the arguments that brought the mills to the dunes in the first place. Even these, the most modern plants in the nation, could not compete in the world market. Instead of a booming economy, jobs and prosperity, they were operating in 1983 at 50 per cent of capacity and contributing to 20 per cent unemployment in the area. Moreover, Japanese steel accounted for much of the Port of Indiana's cargo. The Indiana Dunes compromise produced unanticipated environmental problems and unprecedented headaches for Lakeshore management. Only time will tell whether the benefits will justify the costs. □

**Norma Schaeffer and Kay Franklin** *are experienced local writers with a particular focus on the Indiana Dunes. Their new book,* ***Duel for the Dunes,*** *is about land use conflict. It was published by the University of Illinois Press in the fall of 1983.*

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# Chapter Five

By Lee Botts

# Preservation versus Use

The issue has always been how people can enjoy a national park without destroying the natural resources a park is supposed to protect. The use and lose dilemma is worse for Indiana Dunes because it is a small park accessible to many people and because so many of its valuable natural areas are especially vulnerable. Mount Baldy cannot survive too many climbers, Pinhook Bog too many hikers, nor the heron rookery too many visitors during the nesting season. Yet, like all other national parks, the Indiana Dunes National Lakeshore was created for both recreation and protection of its unique natural areas.

The National Park Service's solution is to plan development to accommodate different uses to particular places in ways that will protect the natural areas as much as possible. Individual parks develop these *use zones* as part of a General Management Plan they are required to produce. Indiana Dunes National Lakeshore's plan was completed in 1980 after a series of public hearings and consultation with local and regional planning groups.

Users need to understand the reasons for the various use zones and should also participate in resolution of conflicts as the management plan is developed, but under law the National Park Service has the final responsibility for determining whether a particular use will be allowed. Conflict between preservation and use has existed since the beginning of the national park system and is implicit in the original legislation to establish the National Park Service.

## Creation of the National Park Service

Before the National Park System Organic Act of 1916, there was no general policy for development, but the Department of Interior generally assumed responsibility for ad hoc protection in the early western parks. The U.S. Army Cavalry was called on to deal with hunters and mineral thieves for 30 years after Yellowstone became the first national park in 1872.

Congress passed the parks act after Theodore Roosevelt raised the conservation consciousness of the country, but the railroads advocated access for recreational sightseeing. Both concepts are reflected in the 1916 act that remains the basic authorizing legislation for the National Park Service. The Act states that the purpose of national parks is "to conserve the scenery and the natural and historic objects and the wild life therein and by such means as will leave them unimpaired for the enjoyment of future generations." It directs broad public access but also states that the national interest must be the basis for decisions.

**Mount Baldy cannot survive too many climbers. . . nor the heron rookery too many visitors during the nesting season.**

Interpretation of the original mandate has varied according to political and economic climates and prevailing aesthetics. New categories for preserves within the national park system which were added in the 1960s added to the confusion about purpose. Yet Congressional authorization for every new park—whether it was called a National Park, a National Recreation Area, a National Seashore or National Lakeshore—has continued to call for both protection and availability for recreational use.

In compromising on the degree of development to resolve land use conflicts, authorizing legislation tends to specify uses for parts of the new unit. Where the intended use is not specified exactly, the compromise is worked out in development of the General Management Plan.

## Preservation Conflict at Indiana Dunes

Although the need for public access for recreation was advanced as a major reason for creating the Indiana Dunes National Lakeshore, the supporters who worked hardest for its establishment have often opposed construction of wide paved roads,

**Bathhouse, Indiana Dunes State Park**

large parking lots, and buildings proposed in National Park Service recreation plans. In 1983 the Save the Dunes Council opposed portions of a new transportation plan which favored use of private cars over public transportation that would depend on a shuttle service within the park. Resolution of development conflicts at the dunes has often depended on compromise about the kind of recreation that is appropriate.

## Pools and Playgrounds

Indiana Dunes was the first national park within a major metropolitan area. In early proposals for its development, Park Service planners from the national staff assumed that visitors would expect to find a city park. In reviewing the first plans for the West Unit that is closest to Chicago and Gary, members of the Save the Dunes Council, city dwellers and residents of the nearby Miller community made it clear, however, that they opposed intensive development for active recreation.

The Save the Dunes Council argued against sacrifice of natural areas; the city dwellers said they wanted fine sand rather than concrete in the dunes; and the Miller neighbors said they feared parking overflow. The proposals for swimming pools, playgrounds and playing fields gave way, as a result, to a beach house and modified picnic areas, with less parking than originally proposed but still more than the Save the Dunes Council wanted. Later, new legislation added several hundred acres for "low impact use" in Miller Woods, Inland Marsh, and the Tolleston Dunes area to the park's westernmost unit. *(See sidebar on Inland Marsh following chapter seven).*

## A Recreation Inventory

The National Lakeshore staff, meanwhile, were also taking their own inventory of recreational uses desired by various groups and individuals with an eye to determining which uses were or were not compatible with parkland protection.

Recreation uses identified included: swimming, picnicking, camping, hiking, orienteering, bicycling, cross-country skiing, horseback riding, photography, nature study, off-road vehicle exercises, hang gliding, canoeing, fishing, sailing, and powerboating. Of these potential uses, only one—ORVs—was eventually banned entirely from the park, although horseback riding and hang gliding have not been strongly encouraged, and money to build a campground has not yet materialized. Powerboat enthusiasts have also been hindered by delays in development of a large marina at one of several potential locations in the West Unit. The marina proposal is a controversial one which has split park supporters more clearly than almost any other issue between those who favor more development and those who insist upon less. The proposal currently awaits a federal appropriation to pay for an environmental impact study.

## A Use Zoning System

The use zoning system developed at the National Lakeshore as part of the obligatory General Management Plan consisted of four main categories, described below. The zoning system's aim is to guide visitors with different interests into different areas of the park and to help them understand particular rules and restrictions in the larger context of overall park goals.

The categories are:

(1) **A Natural Zone** which, in turn has three

**City dwellers and residents of the nearby...community made it clear...that they opposed intensive development.**

separate subzones. Together they make up the biggest single chunk of the Lakeshore.

(a) **the Natural Environment Subzone** takes up almost 60 percent of the park; it includes several miles of beaches, dunes in varying stages of succession and a mixture of wetlands which can stand moderate to heavy foot traffic without damage to the resource.

(b) **the Outstanding Natural Feature Subzone,** occupying some 15 percent of the park's acreage, contains well-known landmarks that receive considerable visitation and are of significant interest to the public. The management strategy for this subzone is to provide visitor access while also providing supervision or interpetive materials which encourage an appreciation of the fragility of the natural and cultural resources. These areas are also watched carefully by the park's science division for signs of environmental damage that would warrant further restrictions on use.

Included in this subzone are Pinhook Bog, Mount Baldy, the Cowles Bog area, various intradunal ponds located mainly in the West Unit, and several areas of dune forests through which the most popular hiking trails run.

(c) **the Protected Natural Area Subzone,** a tiny 2.5 percent of the holdings, includes areas like the Heron Rookery Unit that require rigidly enforced protection and are off-limits to visitors except under special conditions and under supervision of Park Service employees.

(2) **A Historic Zone** which contains all lands managed primarily to preserve cultural resources or to commemorate historical subjects. The historic zone includes 40 acres, or a scant 0.3 percent of lands in the park; it includes the Bailly Homestead and Cemetery, the 19th century Chellberg Farm, and a series of homes in Beverly Shores that were designed for the 1933-34 Chicago World's Fair and shipped to the dunes by barge when the exposition was over. *(See sidebar following chapter three).*

(3) **A Park Development Zone,** comprising 1.3 percent of the Lakeshore, includes all of the manmade structures—park roads and trails, parking lots, bathhouses, restrooms, the Visitor Center, the Environmental Education Center, and administrative and maintenance buildings. The stated strategy for managing this zone is "to develop these facilities in the most efficient, effective and esthetic manner possible, while providing the maximum benefit to visitors and creating the least disruption of the natural, scenic, historic, scientific and recreational values."

(4) **A Special Use Zone,** taking up 24 per cent of the park, consists of areas which lie within park boundaries but are used by private or public interests "which are either beyond the control of the National Park Service or in which NPS interests are secondary to those of another party."

This zone encompasses such disparate land parcels as the Indiana Dunes State Park, the public roads which traverse the park, industrial land parcels designated for eventual acquisition, and private homes sold to the park and then leased back to their former owners for specified periods. Assuring recognition of the private property rights of these owners and persuading them to recognize the rights of park visitors are among the most difficult preservation versus use issues. (Because additions to the Lakeshore approved by Congress in 1980 have not yet been classified as to zone, these percentages will change somewhat).

## Broader Concerns

The park's use zone policy, as detailed in its General Management Plan, also decrees that:

"Because the lands within the Lakeshore have, in many cases, been adversely affected by human activities in the past, it is necessary that much of the land within the Lakeshore be actively managed to restore natural conditions in order that natural ecosystems can be protected and perpetuated." An emphasis is placed on "the need to monitor potential external threats to the resource, to respect the natural role of fire, to utilize prescription burning to maintain fire-dependent plant communities, to monitor the hydrologic conditions of the Lakeshore and, where possible, to reestablish natural surface and groundwater regimes." □

**Lee Botts** *has owned a summer home in the dunes for many years. She was formerly director of the Great Lakes Basin Commission and is currently a research associate specializing in Great Lakes matters at Northwestern University's Center for Urban Affairs and Policy Research.*

# Beaches of the Dunes

*The clean sand beaches of the Indiana Dunes, with their backdrop of wild-flowered dunes, ponds, and forests, have been the biggest drawing card for visitors since earliest human settlement in the region. Before the first roads were cut through on the older, wooded beach ridges to the south, the hard-packed sand on the edge of the lake was also a highway—the quickest way for a traveler on horseback to cross this stretch of the trip between Chicago and Detroit.*

*Today, the beaches are used mainly for sunbathing, picnicking, frisbee-throwing, volleyball and, of course, swimming. Five of them contain specific amenities for tourists. They are listed below in geographic order, from west to east:*

***West Beach** in the Indiana Dunes National Lakeshore—Head north on (Lake-Porter) County Line Road from U.S. 12 to the park entry road; there are signs. Turn right and follow the road to the gate (there's a $2 entrance fee in summer) and continue on to the parking lot. There is a short walk from the parking lot to the beach; pack your gear with that in mind. Facilities include lifeguards; a visitor contact station with exhibits, maps, and interpretive brochures; and a bathhouse containing restrooms, showers, a first aid station and a snack bar. Covered picnic shelters and an extensive trail system are nearby.*

***Indiana Dunes State Park Beach**—Head north from the Indiana Tollway (I-80), I-94, U.S. 12 or 20 on Indiana Highway 49 to the lake. The daily entry fee is $2 per car or 50 cents a person for pedestrians. Facilities include a parking lot, lifeguards, and a bathhouse containing restrooms, showers, a gift shop, and a snack bar. Picnic areas, a campground, and an extensive trail system adjoin the swimming area.*

***Kemil Road Beach** in the National Lakeshore—From the National Lakeshore Visitor Center at U.S. 12 and Kemil Road, proceed north on Kemil (300 E.) Road to the parking lot. There's a short walk from the parking lot to the beach. Facilities include lifeguards, restrooms, and a first aid station.*

***Central Avenue Beach** in the National Lakeshore—Proceed north on Kemil Road from the National Lakeshore Visitor Center to Beverly Drive, then east to Central Avenue. Facilities include lifeguards, a first aid station, parking and restrooms.*

***Mount Baldy** in the National Lakeshore—Take U.S. 12 for 5.3 miles east of the Visitor Center and turn north on Rice Street a few yards east of the Porter/La Porte county line. Facilities include parking and restrooms. NO LIFEGUARDS.*

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# Chapter Six

By Sylvia Troy

# Citizen Action for Preservation

*"The Dunes National Park, I think, is going to be one of the finest parks in the system for one very basic reason, and that is that this wasn't a park that a president of the United States decided to start because he had gone camping there when he was a little boy or that somebody started because of pressure from a certain area or political group or ecological group. The Dunes National Park actually was created by citizen pressure, and it has actually been planned by citizen pressure. So while it may not be the biggest park and it may not be the first urban park, as we sometimes refer to them, it is the first citizens' park . . ."*

**Greg Reising**
**Miller Citizens' Corporation**

**speaking at a public hearing on the General Management Plan for Indiana Dunes National Lakeshore**

**Gary, Indiana January 16, 1980**

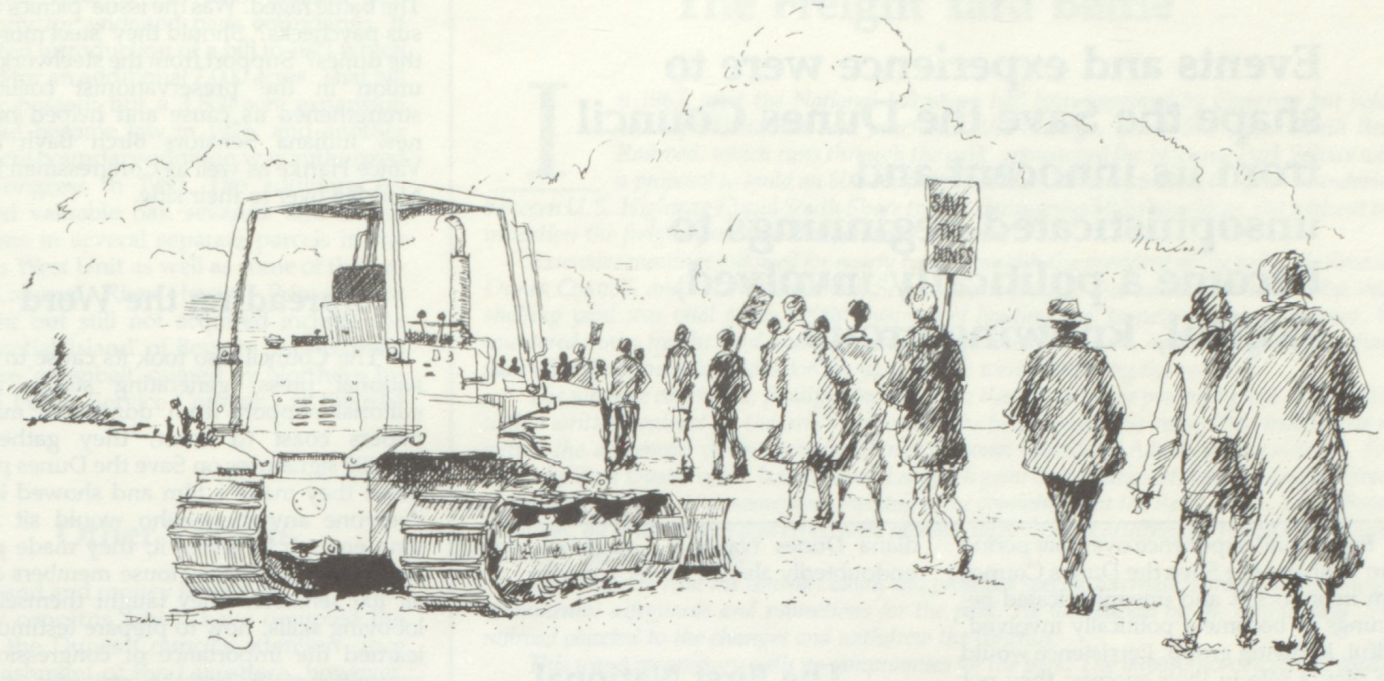
Efforts to save the dunes are as old as the earliest attempts to destroy them; and interestingly, even the first steps to ensure preservation were the result of citizen initiative and grass roots action.

The battle began when improved transportation radiating out from the fast-growing city of Chicago made the south shore of Lake Michigan accessible simultaneously to scientists, nature lovers, and commuters to factory jobs.

## Early Efforts

Friends of the Native Landscape, the Prairie Club, and others who participated regularly in "Saturday walks" at the dunes recognized the need for some formal public claim on the land as a counter-force to industrial expansion soon after U.S. Steel flattened the westernmost dunes to build its harbor, steelmaking complex, and instant company town.

Among the influential leaders whom they persuaded to join their cause was a Chicago industrialist named Stephen Mather who was to become the first director of the National Park Service. Mather proposed a 12,000-acre Sand Dunes National Park as early as 1916. His initial efforts to persuade Congress of the merits of this plan were unsuccessful, and World




**Demonstration at the dunes**

War I delayed action still further. The seeds of the idea were firmly planted, nonetheless, and would eventually bear fruit.

## State Park Established

Local activists turned next to the state for help, and landscape architect Jens Jensen from Friends of the Native Landscape brought Richard Lieber, first director of the new Indiana Department of Conservation, up for a visit. Lieber was impressed; aided by letters from the involved citizens to influential state politicians, he was able to win authorization for a 2,182-acre Indiana Dunes State Park.

The next obstacle—one that would be encountered again many years later with the National Lakeshore—was the discovery that authorization for a park did not automatically include the appropriation of money to buy it. Use of tax money for such purposes was not yet accepted policy, so the local citizens were called into action again. Bess Sheehan of the Indiana Federation of Women's Clubs organized thousands of small donors, including schoolchildren who sent in their pennies, to match corporate donations from such firms as U.S. Steel and Sears, Roebuck & Co.

Finally, on July 1, 1926, the park opened its gates. Almost 63,000 visitors came in the first three months.

## Save the Dunes Council Born

The popularity of the dunes continued to grow in the decades that followed. They seemed in danger of being loved to death, in fact, as residential development augmented industrial expansion. No further public parklands were acquired, however, until the Save the Dunes Council set to work on the problem.

The group was started by Dorothy Buell and about a dozen other women who met for the first time in the living room of her home in Ogden Dunes on a late summer day in 1952.

The immediate focus of their concern was a 3,500-acre pristine tract of wild, high dunes, lakes, interdunal ponds, wetlands and forests which extended from Ogden Dunes east to Dune Acres and from the lake south to U.S. Highway 12. The Council would eventually lose that first battle; the tract that was their first choice for a new park was leveled to make way for a Bethlehem Steel Plant, a Northern Indiana Public Service Company generator, and the Port of Indiana. *(See chapter four for details of the struggles with industry).* But they won the war all the same, prevailing eventually over some of the most powerful forces in the country in a historic conservation confrontation that would last for decades and become a classic of its kind.

**The immediate focus of their concern was a...pristine tract of wild, high dunes.**

**Events and experience were to shape the Save the Dunes Council from its innocent and unsophisticated beginnings to become a politically involved, skillful, knowing group.**

Events and experience over that period were to shape the Save the Dunes Council from its innocent and unsophisticated beginnings to become a politically involved, skillful, knowing group. Persistence would also play a role in their success; they not only marshaled political and public support to establish a national park but made a prescient decision not to disband once that goal was achieved. In the almost 20 years since, they have managed to sustain their credibility and effectiveness as simultaneous protector, friend, and chief critic of that park.

## Finding a Way

The newly formed Council thought at first that it could raise money to buy the land, but it quickly became apparent that this was not practical. They explored the possibility of adding lands to the Indiana Dunes State Park, but the state of Indiana was becoming increasingly committed by that time to industrialization of the dunes and to a harbor at Burns Ditch. As a last resort, they returned to Stephen Mather's original proposal of a Sand Dunes National Park and asked Indiana's senators Homer Capehart and Albert Jenner to introduce a bill; the senators, too, turned them down.

Donald Culross Peattie, the naturalist, suggested to Dorothy Buell at that point that she approach Senator Paul Douglas of Illinois for help. He had spent summers in the dunes and loved the area. After determining that the Indiana congressional delegation was indeed not interested in sponsoring the cause themselves and after becoming convinced that the dunes were being imminently threatened, Douglas reluctantly took on the project and became its fervid and staunch champion. Without his support and guidance, the present Indiana Dunes National Lakeshore would undoubtedly also be under concrete.

## The First National Park Bill

In 1958, he introduced the first bill to establish an Indiana Dunes National Monument to preserve the 3,500 prized acres between Ogden Dunes and Dune Acres. It stood not the smallest chance of passing. Bethlehem Steel had, in fact, already been quietly buying up lots in the contested area, and during a particular Senate hearing with 60 Save the Dunes Council members in the hearing room and the walls lined with Frank Dudley's dunes paintings which they had brought with them on the bus, they heard that bulldozers were leveling the beautiful land they were seeking to preserve.

It was the low point of the struggle and a point at which the Council seriously considered giving up on the whole thing. They decided, instead, to fight harder and to save as much unspoiled land as they could—in big and little pieces—along the whole 15-mile shore.

## The Fine Art of Compromise

Douglas set to work on a compromise the opposition couldn't refuse. The state of Indiana had won its battle for a deep-water port near Burns Ditch, but it still needed $25 million in federal funds to build the harbor's outer breakwater. Douglas lined up enough votes to block the funds unless a vote was also taken on park authorization. The battle raged. Was the issue 'picnics versus paychecks?' Should they 'steel more of the dunes?' Support from the steelworkers' union in the preservationist coalition strengthened its cause and helped bring new Indiana Senators Birch Bayh and Vance Hartke as well as Congressman Ray Madden over to their side.

## Spreading the Word

The Council also took its cause to the national press, generating stories and editorial support from dozens of major papers coast to coast; they gathered 250,000 signatures on Save the Dunes petitions; they made a film and showed it to everyone anywhere who would sit still long enough to watch it; they made personal visits to all 435 House members and all 100 senators. They taught themselves lobbying skills, how to prepare testimony, learned the importance of congressional committee staffs, and the intricacies of the legislative procedure.

## 1966—Lakeshore Established

Finally, late in 1966, Congress authorized an Indiana Dunes National Lakeshore to protect eight miles of shoreline and 5,300 acres exclusive of the Indiana Dunes State Park. The state park was declared within the National Lakeshore boundaries but could be acquired only if the state wished to donate it.

Naively the Council assumed that it had achieved its goal and could consider disbanding. Its members discovered, as their predecessors had learned when they won approval for the state park, that a park remains theoretical without money to pay for it. In 1967, the Council organized another lobbying campaign and managed to secure an initial $1 million appropriation to begin land acquisition.

## Expanding the Park

The Save the Dunes Council has since testified at almost every Parks appropriation hearing; land acquisition today is more than 90 percent complete and the park, with Council backing, has won approval to acquire the rest from an administration that has denied all but minimal further land purchase in almost every other national park in the country.

The Council has also lobbied persistently for widened park boundaries. It directed introduction of a bill in 1971 which called for an additional 7,000 acres. That bill never passed; but a 3,800-acre expansion bill did become law in 1976, and another 400-acre boundary addition was authorized by Congress in 1980. The additions included valuable oak savanna and marsh habitats in several separate parcels in the park's West Unit as well as some of the Little Calumet River basin. Prime areas sought but still not acquired include the residential 'island' of Beverly Shores and a 90-acre 'greenbelt' owned by Northern Indiana Public Service Company in the east unit.

## Other Threats

Land and money have been but two of many concerns which have occupied the Save the Dunes Council's attention since establishment of the Lakeshore, however. It has waged battles with the Park Service itself for a stronger voice at all stages of the planning process; it has successfully fought a number of external threats including off-road vehicle use in the park, sand-mining a nuclear power plant adjacent to the park, a railroad marshaling yard in the park, (*see sidebar, this page*), a jet port in Chesterton and an airport in the lake. The Council has also pushed for more stringent enforcement of air and water pollution control laws in the industrial region which brackets the park.

## Confrontations with the Park

The group's first confrontation on the subject of planning came soon after the park was established. Its members had assumed, perhaps naively, that the park's commitment to preservation with minimal appropriate development would parallel their own. They were shocked to learn first, therefore, that they had to travel to Indianapolis just to find what the park's development plans were and, second, to find that those plans included 26 separate structures at West Beach—including a swimming pool, an amphitheatre, two bath houses, an artificial dune (!), and a three-story parking garage.

They protested to the newspapers, to their congressional supporters, and to the Secretary of the Interior. They also persuaded the regional planning agency, now the Northwestern Indiana Regional Planning Commission, to hold local hearings on the plan.

## Changes in the System

Park Service attitudes have subsequently changed. Local public hearings on General Management Plans are now required throughout the National Park system, and planning personnel within the Service have also since become more attuned to a stronger preservation ethic. At Indiana Dunes, meanwhile, local demand for an on-site planner was approved to supplement the team working long-distance from the park's planning office at the Denver Service Center. A planning advisory group incorporating local and regional planning agencies as well as area citizens' groups was created; and a new, more acceptable General Management Plan for park development eventually emerged.

A 10-year effort to block construction of NIPSCO's proposed Bailly Nuclear Power Plant was among the most significant victories; the Park Service itself was not able to say outright that it opposed nuclear power as such, but the results of research conducted by its science division tended to support the objections of local citizens' groups to its location adjacent to the fragile Cowles Bog area of the park. Chief actors in this long struggle were the Bailly Alliance, the Izaak Walton League, and Business and Professional People for the Public Interest.

The Save the Dunes Council continues today to monitor park development and to work with the National Park Service staff. Its position vis-a-vis the Park Service is supportive, watchful, and wary. The Council recognizes that as a government agency the Service operates under certain constraints and is vulnerable to political pressure. The Council sees its role as being helpful, independent...and tough when the situation warrants. Additions to the Park continue through land donations from The Nature Conservancy and Shirley Heinze Environmental Fund. Its prime purpose is to defend the resource—to protect the park and its natural values which so many have worked so hard, so long, and so determinedly to preserve. □

## The Freight Yard Battle

*In 1967, after the National Lakeshore had been approved by Congress but before much parkland had been purchased, the Chicago, South Shore and South Bend Railroad, which runs through the park, approached the National Park Service with a proposal to build an 800-car freight yard on 26 acres within the park boundaries, between U.S. Highway 12 and South Shore tracks. Outrageous? We thought so, but without our invention the freight yard would most likely be there.*

*Extensive meetings followed for nearly two years with the president of the railroad, Save the Dunes Council, and the National Park Service participating. The railroad contended the marshalling yard was vital to its freight business of hauling coal to neighboring industries. We countered that a freight yard was incompatible with a national park, and our engineering chairman offered alternate locations for the yard. These were rejected by the railroad.*

*The wrangle continued, finally culminating in the South Shore presenting the Park Service with a written contract for the park's approval of the freight yard. We insisted the matter first required the agreement of the Indiana Dunes National Lakeshore Advisory Commission. Fortunately, Tom Dustin of the Izaak Walton League, a great conversationist, was the first chairman of that commission. At a momentous meeting of the commission at the Red Lantern Inn in Beverly Shores, all of the parties concerned were present, including the attorney for the Save the Dunes Council. The scene was set.*

*Our attorney read the contract aloud and proposed specific alternate wording to include environmental safeguards and protections for the park. He was backed by the commission. The railroad objected to the changes and withdrew the contract.*

*This was a rare victory with no compromises for the park. The importance of a citizen watchdog group to protect the park was affirmed.*

*—Sylvia Troy*

**Sylvia Troy** *is a long-time dunes resident and indefatigable supporter of preservation efforts. She was president of the Save the Dunes Council 1967-76 and is currently a trustee and secretary of the Shirley Heinze Environmental Fund.*

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Chapter Seven

By K. Lynton Caldwell

# The National Parks and American Land Use Policy

**Establishment of the Yellowstone National Park in 1872 marked a turning point in national land use policy.**

The political controversies surrounding the Indiana Dunes National Lakeshore may in part be attributed to reconciling its preservation with traditional and conventional concepts of a "National Park" and the legitimacy of public acquisition of land for park purposes. The first national parks were large primeval areas with spectacular scenery carved out of the public domain. They were far from urban, industrial, or even agricultural areas, were virtually uninhabitated and represented at the outset no significant "out-of-pocket" cost to the federal treasury.

For the first century and a half of American history, public policy for land and national resources was largely one of "privatization." To encourage settlement and thus secure a stronger claim on lands newly acquired by purchase from or war with other countries, the government offered numerous incentives for the rapid transfer of public domain to private ownership. Prior to the progressive movement early in the 20th century, federal land holdings in the minds of many people could not legitimately go beyond a custody of post offices and military establishments (with the obvious exception of the national capital). This attitude toward land was also a logical corollary to the political philosophy that the proper role of American government was to protect and advance the interests of private individuals.

## Birth of the Preservation Movement

Although there were political leaders, some prominent, throughout the 19th century, who spoke out in favor of a responsible custody of America's natural heritage, they did not represent the main current of political or economic thought. Establishment of the Yellowstone National Park in 1872 marked a turning point in national land use policy. Equally significant was the establishment of the U.S. Forest Service in 1905, an early major achievement of the nascent conservation movement in America. Establishment of the National Park Service in 1916 further institutionalized a growing public acceptance of the proposition that the responsibilities of the national government for land extended beyond forts and post offices to the preservation and protection of America's heritage in nature. But among those who accepted this broadened view of legitimate federal land holding, many were jealous that it be strictly and narrowly interpreted, applying only to the most distinctive, preferably unique natural areas.

Edge of a forested dune, Indiana Dunes National Lakeshore

## A Permanent National Trust

As presidents and congresses over the years set aside various tracts of the public domain for special purposes, thereby removing them from private acquisition, it became ever more evident that traditional assumptions regarding the ultimate disposition of public lands to private owners could no longer be assumed. Diverse concerns over the future of the public domain led in 1966 to the establishment of the Public Land Law Review Commission. The report of that commission and the subsequent passage in 1976 of the National Forest Management Act and the Federal Land Planning and Management Act established a new national policy—for the time being dominant—that the public domain which constituted one-third of the lands of the United States would not be subject to further general disposal but would be held and managed in trust for the nation as a whole.

Two points of view are now in political competition: the traditional view that public land holding should be minimal is matched by a counter concept favoring permanent federal custody and management of public lands and resources. This latter viewpoint was extended in the proposed National Land Use Planning Act of 1970 to provide federal assistance and indeed coercive persuasion on behalf of land use planning in the states. Although endorsed by President Richard Nixon and passed by the Senate, this measure foundered in the House of Representatives where development and agricultural interests succeeded in locking it up in the rules committee. It never reached debate or vote on the floor of the House.

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**The history of the Indiana Dunes has been one of controversy . . . over the legitimate scope . . . of federal land ownership.**

## The Question of Legitimacy

Although the foregoing remarks may appear to be a digression from the subject of the National Park Service and the Indiana Dunes, they in fact point to the heart of the problem. The history of the Indiana Dunes National Lakeshore has been one of controversy, and that controversy has at basis been over the legitimate scope and purpose of federal land ownership and acquisition. Because national lakeshores as administrative entities did not conform to the original and widely accepted definition of a national park, the legitimacy question became a prime political issue. The National Park Service found itself in the midst of a heated political controversy over how in the case of the Indiana Dunes the question of legitimacy should be resolved.

With respect to the original national park idea, there is today overwhelming although not completely unanimous acceptance. But the National Park Service is custodian to many areas that are not national parks; in addition to the new national lakeshores, national seashores, and national recreation areas, there are also historic sites and buildings, national monuments, and large public areas in the District of Columbia. With the advent of

**Where public opinion and political authority are divided...public agencies are likely to be ambivalent.**

the Reagan administration it became clear that some Americans did not regard all these functions, and particularly national seashores and parks in urban areas, as legitimate objects of federal ownership and responsibility.

## Broadening the Parks Concept

On issues where public opinion and political authority are divided, responsible public agencies are likely to be ambivalent. The Indiana Dunes National Lakeshore is by no means the only area in which the National Park Service has received conflicting signals from the Congress and the Executive Branch. The first director of the National Park Service, Stephen Mather, advocated establishment of a large primeval Sand Dunes National Park. Had Stephen Mather's concept materialized, the circumstances that made the establishment of the Lakeshore controversial would not have arisen. At the time the national park system was established, the dunes area was relatively unpopulated, industrial encroachment was sufficiently removed to pose no direct and immediate threat to the ecological integrity of the area, and there were no significant landholdings in the proposed area that could not have been acquired at relatively modest cost. Had a politically liberal national administration come to power following World War I, the Mather dunes national park idea might have been revived. But the conservatism of the Harding-Coolidge-Hoover era precluded any significant federal investment in an area such as the Indiana Dunes which was privately held and did not correspond to conventional opinion as to areas that were unique and spectacular.

Years of economic depression, war, and post-war economic boom delayed revival of the dunes park idea still further, and the National Park Service during these years, with limited funds and priorities, responded to pressures for the expansion of the national park system elsewhere. There was very little official support for the idea of a Dunes National Park in the state of Indiana; indeed the emphasis from the 1930s until the middle '60s was almost wholly on the commercial development of the dunes with the building of a public port and the establishment of a new large industrial complex on the shores of Lake Michigan *(See chapter four)*. During the 1960s, however, and tangentially related to Lyndon Johnson's Great Society program, the National Park Service underwent an expansion in scope and mission.

## Three New Ideas

Three developments in particular influenced the future of the Indiana Dunes National Lakeshore during that period. They were, first, the concept of the urban national park, the idea of bringing national parks to the people instead of vice versa; second, the growth of an outdoor recreation movement which was expressed within the government through creation of the Bureau of Outdoor Recreation in the Department of the Interior, by establishment of President Johnson's Outdoor Recreation Resource Review Commission and the followup Citizens Committee for Outdoor Recreation; and, third, a movement to conserve and protect the rapidly disappearing public areas on the nation's coastline which culminated in the Coastal Zone Management Act of 1972.

The aggregate effect of these movements provided a favorable climate nationally for creating precisely the kind of federal land preserve that a group of people in northwestern Indiana had sought for half a century. In November 1966, the Indiana Dunes National Lakeshore came into being as a legal entity. But this event merely legitimized the subsequent effort to establish the actual lakeshore preserve through land acquisition.

## Environment and the Consumer

The course of establishing the Lakeshore was to be influenced by yet another subtle shift in the national vision which came to be expressed in the growth of the environmental and consumer movements.

The Lakeshore's earliest days coincided with a period when the esthetic of intensive development still held sway at various levels within and outside government; mechanisms for public participation in decisionmaking had also not yet been institutionalized to their present extent. Both of these situations were evident in the National Park Service's first presentation of a Master Plan for the new park. Not only did it recommend heavy development that would necessitate destruction of some particularly treasured natural resources *(see chapter five)*; it also presented the plans for that development not at the park site itself where most of the Lakeshore's original supporters lived but 150 miles away, in Indianapolis.

Local protests—which set in motion steps to reverse the original plan and increase public input—were typical of efforts then underway in many parts of the country to preserve land in a natural state and to reverse the effects of unchecked pollution. Among the legislative results of this widespread public interest was the National Environmental Policy Act of 1972, which not only articulated the new national vision but included the specific requirement that environmental impact statements be prepared before federal agencies could undertake projects that might have adverse ecological impacts.

**...the Lakeshore was to be influenced by... another subtle shift in the national vision.**

The Park Service, in the years since the National Lakeshore was established, has also revised its planning guidelines to include extensive public review of development proposals at various stages.

Another indication of the change in public opinion was the revocation, in the Indiana Dunes National Lakeshore expansion bill of 1976, of the "Cape Cod Formula" which had been part of the original legislation 10 years earlier. The Cape Cod Formula, so-called because the principle was first articulated in legislation establishing the Cape Cod National Seashore, decreed that private land holdings within park boundaries were not incompatible with the goals of a National Seashore (and, by implication, Lakeshore). The 1976 legislation for Indiana Dunes stated that acquisition of all land within the park boundaries was an eventual goal. The Park Service, which had previously been unable to push for inclusion of lands in the residential "island" of Beverly Shores, was henceforth able to do so (albeit so far unsuccessfully).

## Economic Constraints

Constraints imposed during a long economic recession by a dearth of Congressional appropriations have delayed completion of the National Lakeshore's current General Management Plan quite as thoroughly as have the philosophical biases of the Reagan administration, expressed by its Department of the Interior and its Office of Management and Budget.

## Old Ideas and New Battles

The preservation ethic, however, and Congressional intent as spelled out in park legislation, has nonetheless protected the park so far from the threat of deauthorization and from the excesses of guidelines drawn up by Secretary Watt for Land Protection Plans. (The Plans were designed to secure protection of lands in national parks by means other than fee acquisition. Park inholders are, by this plan, prevented either from making improvements to their property OR selling it to the government). The National Lakeshore cited Congressional Intent for the park in its own Land Protection Plan to argue for completion of its land acquisition process as scheduled and had, while this book was being compiled, won at least initial Department of Interior approval for the proposal.

**Lynton Caldwell** *is a former member of the Indiana Dunes National Lakeshore Advisory Commission and was a principal drafter of the National Environmental Policy Act. He is currently the Arthur F. Bentley Professor of Political Science and Professor of Public and Environmental Affairs at Indiana University.*

**Hairy Puccoon**

# Inland Marsh, symbol of duneland diversity

*The marsh on a muggy morning in summer with the fog rolling in looks Paleozoic—a ferny jungle time warp from the tropical paradise of the prehistoric Midwest. Like the rest of the region's landscape, though, this 400-acre dune complex was shaped by a much more recent series of events—the Ice Age and its aftermath.*

*The east-west ridges were bare sand dunes at the water's edge during the Tolleston stage of Lake Chicago between 8,000 and 12,000 years ago; and the tongues of high ground that extend south from those ridges were blown into their present configuration by wind before the beach ridges were stabilized by vegetation. The lowlands that separate the ridges were lagoons in Lake Chicago.*

*Inland Marsh was declared within National Lakeshore boundaries in the 1976 expansion bill, and it was purchased from Inland Steel in 1978. The park, responding to public preferences and to scientific research by its own staff, has specified in its General Management Plan that the tract receive minimal development. ORV enthusiasts made a strong pitch for being allowed to use a sand-mined section of the marsh, but were eventually turned down.*

*The park plans a short entry road and parking lot on the sand mined strip instead; further development will consist only of trail building and maintenance, signs, and an interpretive brochure for hikers and cross-country skiers.*

*The Chicago Audubon Society is currently supervising a volunteer survey of breeding birds in the Marsh, and botanist Jerry Wilhelm of Morton Arboretum has done a survey of the flora under contract to the Park Service.*

*Access at present is from a pull-off on U.S. 12, .9 miles east of the access road to West Beach. A circular trail about three miles long begins and ends at that point. (A caution: The trail network in place at the moment was not planned systematically but has merely developed from long and customary use; it can as a result be confusing. A USGS map (Portage 15' quad) and a compass are recommended.*

*Oak savanna dominates the high ground; almost every classic dune plant of foredunes and oak wood is present. So are a few scarcer species, such as cream wild indigo, a prairie plant. Breeding birds include bluebirds and yellow-breasted chats in addition to more common birds of open woodland.*

*The trails follow this high ground for the most part and provide views over the marsh. Cattails and rushes are typical over most of the marsh, although aspen saplings have grown up in great profusion in the drier lowland sections.*

*—Glenda Daniel*

**Lupine**

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Little Bluestem Grass

# Section IV

## Alternatives for the Future

Chapter Eight

By Charlotte J. Read

# Shifting Scenarios—What Does the Future Hold?

*"The individual citizen and the voluntary association are the corpuscles of our political bloodstream—and over the long haul it is their day-to-day actions that will decide the legacy we leave for other generations."*

*Stewart Udall,* **The Quiet Crisis**

The economic as well as the cultural and aesthetic benefits of citizen preservation efforts at the dunes are widely recognized today by many of the same political and business forces which once opposed state and national parks along Indiana's Lake Michigan shore.

In 1983, the advantages of economic diversification were especially obvious; while the region's steel industry was in a severe slump, park business was booming. The National Lakeshore and State Park provided a respectable 260 jobs which pumped over $2.4 million into the local economy from payrolls alone. The National Lakeshore's operating budget for the year totalled $3.4 million with an additional $450,000 going for capital expenditures; the State Park's 1983 operating budget was $374,000.

The local area has also benefited from maintenance money provided by the National Park Service to upgrade local roads and by the work of Lakeshore-sponsored Youth Conservation Corps members who have painted town buildings, installed culverts, and provided beach and roadside cleanup. And in the fall of '83, the National Lakeshore's presence made possible a new Congressional appropriation to build an interchange on Interstate Highway 94 to provide improved access to Michigan City on the park's eastern edge.

New threats to the parks' continued existence and to their integrity as nature preserves still crop up, however, reinforcing the conservationists' cliché that preservation is always a holding action. Vigilance by citizen groups and individuals remains more important today than it has ever been.

## Internal Problems

Ironically, some of the threats have resulted directly from the parks' growing popularity. Millions of people live within a short drive of the dunes, and every year more and more of them are coming to visit. Indiana Dunes State Park has attracted close to a million visitors a year since the mid-1970s; by Labor Day 1983, more than 1.2 million had also visited the National Lakeshore—an increase of 44 percent over the same period in 1982.

This popularity may soon outstrip the ability of the state and national parks' resources to support intense visitation without suffering permanent impairment. Recovery capacity of the fragile dune-and-

wetland complexes is not precisely known; pressure to provide additional parking space, roads and buildings for increasing numbers of visitors could also lead to destruction of unspoiled dune lands.

Pressure exists to open up the park lands to additional recreational uses the Council considers incompatible with preservation—uses such as offroad vehicles, hang gliding, and marina development. These uses can and should be accommodated outside the park.

And because the Lakeshore exists in or near residential areas, conflicts between park visitors and residents also develop periodically.

## External Problems

Other threats to the dunes come from sources and events beyond park boundaries and, therefore, often beyond the control of park managers. These threats range from resource manipulation to environmental pollution.

Man-made alterations of the Lake Michigan shoreline outside the parks, for instance, have caused serious erosion of beaches and dunes, especially at the National Lakeshore's eastern end.

Wetlands in the Cowles Bog area have been degraded—perhaps permanently—by seepage from fly ash settling ponds, although the seepage has now been stopped. (The Department of Interior, in a rare case of pursuing a problem outside park boundaries, persuaded NIPSCO to seal the ponds.) The fly ash was a by-product of electric power generation using coal; the seepage was exacerbated by years of dewatering activity carried out in connection with excavation work for the since discontinued Bailly nuclear power plant.

Sewage from overloaded municipal treatment plants in nearby communities has forced the closing of Lakeshore beaches on hot summer days.

Pinhook Bog has been harmed by years of runoff from road salt, although that damage has now also stopped and the bog is recovering thanks to cooperative efforts of the National Park Service and the State of Indiana.

Air pollution from industrial sources surrounding the parks and from cars and trucks is a continuing problem. The Indiana Dunes National Lakeshore does not enjoy the special protection that the federal Clean Air Act provides for the larger, mainly western national parks.

Industrial and commercial waste disposal sites may also be threatening park resources although federal water quality standards now provide for non-degradation of water resources in national and state parks.

**Tree graveyard**

## Political Problems

Creation of a national park is a political act. Indiana Dunes National Lakeshore is no exception. It was the subject of one of the most interesting political battles ever fought over a park. However, until the Reagan administration took office in 1981, the Save the Dunes Council had hoped the Indiana Dunes National Lakeshore was at last safe and secure. It had been in existence for 15 years when James Watt became Secretary of the Interior. The policy changes he brought about or attempted to bring about heralded new and disquieting attitudes toward national parks, especially toward the small and the relatively new among them—like the Indiana Dunes. Watt recommended that federal funds for land acquisition be cut drastically, that development be stressed over preservation; he eventually ordered a moratorium—or halt—to purchase of private lands within park boundaries.

But the worst was yet to come. The Save the Dunes Council was shocked when rumors of a "hit list" of small national parks were publicized by the media. The listed parks were to be studied for removal from the national park system, on orders of a high official in the Department of the Interior. And the Indiana Dunes National Lakeshore was on the list. The national park which had taken decades to accomplish was being threatened by the very officials who had just assumed responsibility for its management.

Council members wondered whether a new campaign would be necessary—to save the dunes all over again. Fortunately, widespread public support, backed by lobbying efforts from the Save the Dunes Council and other environmental groups, quickly burst the "hit list" trial balloon; Secretary Watt publicly disavowed any plans to deauthorize Indiana Dunes National Lakeshore.

# The Bare Facts

*Indiana Dunes State Park encompasses 2, 182 acres and includes a three-mile beach along Lake Michigan, a bathhouse which contains a restaurant, a store, restrooms, and showers, and a campground with electric hook-ups and separate, primitive tent sites. Interpretive facilities and guided tours are available. The eastern 2/3 of the park is dedicated as a National Registered Natural Landmark and as a state nature preserve, planned for minimum-impact use. Ten trails totalling about 17 miles traverse the park.*

*Indiana Dunes National Lakeshore boundaries cover 13,000+ acres, including the state park. Of this total, 588 acres consist of water and submerged land, and nearly 15 miles are Lake Michigan shoreline. The park is divided into two main units—East and West—and four detached areas: the Heron Rookery, Hoosier Prairie, Pinhook Bog, and a campground site (not yet developed). The park contains three National Registered Natural Landmarks: Cowles Bog, Pinhook Bog, and Hoosier Prairie. It contains one National Registered Historic Landmark, the Bailly Homestead. The park contains a bathhouse with showers, restrooms, a first aid station, and a food concession in its West Unit. It contains seven trails totalling about 30 miles. A Visitor Center at U.S. 12 and Kemil Road houses educational exhibits, a bookstore, and the interpretive staff. Guided tours are available on a regularly scheduled basis; write to request printed schedules.*

*About five per cent of the private land within the National Lakeshore boundaries remained to be purchased in late 1983, including about two dozen homes. Many homes already purchased will be occupied on a reservation-of-use for the near future. These private holdings (reservations-of-use are treated as private until the reservations expire) are scattered throughout the park, delaying for the immediate future the opening up of some areas to public use.*

*For more information, write:*

***Indiana Dunes State Park,** 1600 N. County Road 25 East, Chesterton, IN 46304, or call (219) 926-4520.*

***Indiana Dunes National Lakeshore**, 1100 N. Mineral Springs Road, Porter, IN 46304 or call (219) 926-7561.*

***Charlotte J. Read***

Fortunately, Congress did not support the idea of shrinking the National Park System either, and so, since only Congress can create, enlarge, or abolish a national park, the administration's "hit list" went nowhere.

The scare provided the Save the Dunes Council with a valuable reminder that no park is ever really secure and that every park needs the continuing support of an informed and active citizenry to survive.

## Political Realities

When Congress finally passed legislation in 1966 authorizing the Indiana Dunes National Lakeshore, it set forth the purposes of the park, outlined its boundaries, and established ceilings on the amounts of money that could be spent to purchase land and to develop facilities for visitors.

In 1967, the Council learned that the law creating the Indiana Dunes National Lakeshore was not automatically self-fulfilling, however, when we had to lobby intensively for its first appropriations.

If Congress does not appropriate money, there is, in fact, no park. Members of Congress (and therefore key committee members) also change, and their staff members come and go. Establishing and maintaining good relations with Congress is not merely an essential task but a continuing one.

Once Congress has enacted park legislation, the actual responsibility for the park becomes the job of the National Park Service. Citizen participation through monitoring and suggestions has also been valuable on management questions—particularly through the public hearing process that led to the park's general management plan and during the still ongoing implementation of that plan. It is important for citizens to realize the Park Service's own limitations, too, however, and to act on the park's behalf when its own employees cannot.

Park Service managers are not authorized to establish parks, set park boundaries, or spend more money than Congress gives them for land purchase, for staff, and for facilities on lands within the boundaries that are actually in federal ownership.

They can enforce their own regulations on park land but must obtain the state's permission to enforce state and local laws within the park. They have no special authority to protect park resources from threats outside the park, no matter how great that threat might be, and they may be either unable or unwilling to protect the parks from some threats that develop within the boundaries.

Indiana Dunes National Lakeshore has been protected in several instances by citizen groups who stepped in where the Park Service could not or would not. Some of these threats have resulted from projects being promoted by other federal agencies.

## The Dunes Tomorrow—"Missing Pieces"

Most but not all of the area known as the Indiana Dunes is included within the boundaries of the Indiana Dunes National Lakeshore. Areas of high quality dune land which the Council believes should be part of the Lakeshore still lack protection, however.

Most of these desirable—and the Council believes necessary—additions have several characteristics in common: they have been identified as valuable additions to the Lakeshore by individual citizens, environmental groups, scientists, or Park Service study teams; they are attractive areas for residential development or—less frequently—for commercial or industrial development; they usually include some existing development which increases the cost; and they are often owned by interests who oppose their inclusion in the park. These areas are valuable additions because, first, they would expand the small land base of the park. Second, their acquisition would in most cases eliminate a resource threat or solve a management problem. And, last but not least, they represent the last unspoiled and unprotected remnants of the Indiana Dunes.

## The Importance of Public Support

The Indiana Dunes State Park has remained stable for many years now—its main problems coming from vandalism and habitat damage from visitor overuse. The National Lakeshore on the other hand is still a developing park and needs continuing public support even in the absence of an immediate crisis.

It was relatively easy to marshal troops for public hearings, letter writing campaigns, and financial contributions for lobbying efforts during the long battle to get legislative approval to establish the

park and, later, to expand its boundaries. That support was maintained when the proposed Bailly nuclear plant threatened to destroy the Cowles Bog Area, and it was revitalized during the "hit list" crisis and the threats posed by the drastic policies of former Interior Secretary James Watt.

Administrative problems and legal action on pollution and other environmental issues are not as glamorous but are just as important and need just as much time and money to resolve.

## Sustaining Public Support

Despite the present and future problems facing the Indiana Dunes National Lakeshore, the dunes themselves are the biggest asset in building public support—IF the public is aware that support is needed.

The Indiana Dunes is fortunate because it has three very different organizations dedicated to channeling public support. The oldest and, I believe, the foremost is the Save the Dunes Council. Our role in preserving and protecting the Indiana Dunes for over 30 years has been detailed throughout this book. With almost 2,000 members in nearly every state in the union, the Council has spearheaded the drive to preserve the Indiana Dunes in a national park, to monitor how both parks are being developed, used, or abused, and to speak out whenever necessary.

In the 1980s, two new and very different groups have been established. They are the Shirley Heinze Environmental Fund and the Friends of the Indiana Dunes National Lakeshore. The Shirley Heinze Environmental Fund, established in 1981 as a charitable trust, is committed to supporting educational projects on the environmental and cultural values of the dunes, to defending dunes resources, and to acquiring dune lands outside park boundaries by donation or by purchase. The Heinze Fund is prohibited from lobbying and emphasizes protective activities of a nonadversarial nature. But, like the Save the Dunes Council, it is essentially an *outsider* group.

The Friends of the Indiana Dunes National Lakeshore, works closely with the Lakeshore staff, assisting park managers in interpretive and educational activities related to the park's mission. Many of its members are Lakeshore VIPs (Volunteers in Parks). It can carry on fund raising activities in the park for such projects as the Duneland Folk Festival and the Maple Sugar Festival, and it can provide various educational courses that help the Lakeshore conduct activities compatible with management goals that otherwise could not be attempted because of lack of funds.

## What Next?

With public support, unprotected dune lands still outside park boundaries eventually could become a part of the Lakeshore, whether by Act of Congress or by private efforts. Sufficient funds will continue to be provided to manage the Indiana Dunes, and incompatible uses or overuse of the park will be prevented or corrected. Pollution problems will eventually be resolved if the public demands it. As an indication of the future, it may be useful to relate what the Save the Dunes Council has tried to accomplish for the Indiana Dunes just in the past two years.

The Council prevented construction of a breakwater on park land that would have further eroded an already eroding Lakeshore beach. It stopped—at least temporarily—the local drainage board from dredging a waterway within the park which would have destroyed park resources along a one-mile long, 150-foot wide stretch, when the Park Service managers were powerless to act. It is presently involved in two federal court cases to prevent culmination of an agreement between the federal government and Northern Indiana Public Service Company that would drop 30 acres of prime dune lands from the park because the company does not want to sell its land for the park.

It is impossible to predict what the major threats will be in the future. It is possible, however, to predict that the park will survive only if it has public support. The commitment of Save the Dunes Council, the Shirley Heinze Environmental Fund, the Friends of the Indiana Dunes National Lakeshore, and countless other environmental, civic, and labor groups will be needed tomorrow to make sure that the Indiana Dunes really have been saved. □

**Charlotte J. Read** *is a long-time area resident and supporter of dunes preservation. She is the executive director of the Save the Dunes Council.*

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